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VOLUME 15

APRIL-MAY-JUNE, 1918

NUMBER 2

BULLETIN
OF
THE OKLAHOMA AGRICULTURAL
AND MECHANICAL COLLEGE
CATALOG 1917-1918 ✓

WITH ANNOUNCEMENTS FOR 1918-1919



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PUBLISHED QUARTERLY BY
OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE
STILLWATER, OKLAHOMA

BULLETIN
OF THE
OKLAHOMA
AGRICULTURAL AND MECHANICAL COLLEGE
STILLWATER, OKLAHOMA

TWENTY-SEVENTH
ANNUAL CATALOG

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CHART OF OKLAHOMA A. & M. COLLEGE WORK

II

OKLAHOMA A. & M. COLLEGE

Oklahoma Agricultural and Mechanical College

The College, after twenty-seven years of development, consists of 123 teachers and officers, a group of fourteen brick and stone buildings, a science equipment costing more than a quarter of a million, and 1,000 acres of land. Total value of buildings, grounds and equipment, \$925,220.02.

1. Complete Courses of Instruction

AGRICULTURE
ENGINEERING
HOME ECONOMICS
SCIENCE AND LITERATURE
SCHOOL OF EDUCATION
VETERINARY MEDICINE
COMMERCE AND MARKETING
BUSINESS TRAINING
SHORT COURSES FOR
FARMERS
DAIRYMEN
TEACHERS
FARM BOYS
ENGINEERS

Agricultural Experiment Station tests and free publications.

Lectures at Farmers Institutes and other meetings.

Organizing Boys and Girls Clubs at home for the study of Agriculture, Domestic Science and related subjects.

Agricultural Extension under the terms of the Smith-Lever Act—the county agent work in Agriculture and Home Economics.

2. The Outside Work for the People of the State

COLLEGE CALENDAR

First Semester**1918**

September 5, Thursday—Entrance Examinations.
September 5 and 6, Thursday and Friday—Registration.
September 7, Saturday—Classwork Begins.
November 28, Thursday—Thanksgiving Day, a Holiday.
December 21, Saturday—Christmas Holidays Begin.

1919

January 2, Thursday—Work of First Semester Resumes.
January 21, Tuesday—First Semester Closes.

Second Semester

January 21, Tuesday—Entrance Examinations.
January 22 and 23, Wednesday and Thursday—Registration.
January 24, Friday—Classwork Begins.
Easter Vacation Begins Friday Morning Before Easter Sunday
and Closes Monday Morning After Easter Sunday.
May 25, Sunday—Baccalaureate Sermon.
May 30, Friday—Commencement Day; Second Semester Closes.

Summer Session

June 2, Monday—Summer Session Opens.
August 1, Friday—Summer Session Closes.

(The Faculty reserves the right, without further notice, to modify any announcement made in this catalog if circumstances render such change necessary, and in any event will be bound by it for only the year following the date of publication.)

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S. M. MCCUITION	- - - - -	Pawhuska, Osage County
GEO A. MCMURDO	- - - - -	Anadarko, Caddo County
P. M. MANN (col.)	- - - - -	Okmulgee; Okmulgee, s. w. ¼ Wagoner, Tulsa Counties
M. T. MAUDLIN	- - - - -	Pawnee, Pawnee County
R. C. MELOY	- - - - -	Claremore, Rogers County
WILLIAM MINGO (col.)	- - - - -	Chandler; Okfuskee, Lincoln, Creek Counties
W. M. MOBERLY	- - - - -	Stilwell, Adair County
R. C. MOORE	- - - - -	Shawnee, Pottawatomie County
T. H. MOORE	- - - - -	Stigler, Haskell County
B. B. MOSTELLER	- - - - -	Frederick, Tillman County
LEVI NELSON (col.)	- - - - -	Muskogee; Muskogee, McIntosh Counties
J. F. NEELY	- - - - -	Lawton, Comanche County
J. F. NEWSOM	- - - - -	Beaver, Beaver County
J. W. OWEN	- - - - -	Purcell, McClain County
G. S. PARKER (col.)	- - - - -	Wewoka; Seminole, Hughes Counties
F. F. PARKER	- - - - -	Hobart, Kiowa County
C. A. PATTERSON	- - - - -	Cherokee, Alfalfa County
J. M. RAPP	- - - - -	Watonga, Blaine County
L. E. RATHBUN	- - - - -	Cheyenne, Roger Mills County
JOHN W. RILEY	- - - - -	Sapulpa, Creek County
J. F. RIDDELL	- - - - -	Newkirk, Kay County
CARL RUSSELL	- - - - -	Ardmore, Carter County
R. F. SHIFLETT	- - - - -	Guymon, Texas County
H. W. C. SHELTON	- - - - -	Poteau, Leflore County
A. RAY SMITH, <i>Assistant</i>	- - - - -	Muskogee, Muskogee County
W. F. SMITH, <i>Assistant</i>	- - - - -	Shawnee, Pottawatomie County
A. J. STEVENS	- - - - -	Sulphur, Murray County
C. C. STINSON	- - - - -	Ryan, Jefferson County
E. B. STRADER	- - - - -	Marietta, Love County
J. R. THOMAS	- - - - -	Medford, Grant County
G. E. THOMAS	- - - - -	Vinita, Craig County
NORMAN C. WARD, <i>Assistant</i>	- - - - -	Coalgate, Coal County
M. A. WATKINS	- - - - -	Clinton, Custer County
F. K. WEST	- - - - -	El Reno, Canadian County
R. L. WEAR	- - - - -	Holdenville, Hughes County
H. E. WILSON, <i>Assistant</i>	- - - - -	Fairfax, Osage County
H. E. WHEAT	- - - - -	Buffalo, Harper County
J. ROBERT WILEY	- - - - -	Kingfisher, Kingfisher County
H. M. WOLVERTON	- - - - -	Nowata, Nowata County
O. L. WOLF	- - - - -	Eufaula, McIntosh County
J. A. WYATT	- - - - -	Hugo, Choctaw County
W. T. YOAKUM	- - - - -	McAlester, Pittsburg County
CLINT YOUNG	- - - - -	Grove, Delaware County

Women Agents

MISS MAUDE ANDREWS	- - - - -	Madill, Marshall County
MRS. HARRIET V. ASHCRAFT (col.)	- - - - -	Guthrie, Logan County
MISS IVA BURCH	- - - - -	Bartlesville, Washington County
MISS MAUDE A. BANDELL, <i>Assistant</i>	- - - - -	Bartlesville; Washington and Dewey Counties
MISS LENA BLAIR	- - - - -	Stigler, Haskell County
MISS NORMA BRUMBAUGH, <i>Assistant</i>	- - - - -	Shawnee, Urban, Pottawatomie County
MISS AQUILLA O. CHADWICK (col.)	- - - - -	Muskogee, Muskogee County
MRS. MINNIE B. CHURCH	- - - - -	Ardmore, Carter County
MRS. ELIZABETH CLARK	- - - - -	Stillwater, Payne County
MISS SARAH R. CLARKE	- - - - -	Durant, Bryan County
MISS G. ELSIE CARTER, <i>Assistant</i>	- - - - -	Guthrie, Urban, Logan County
MRS. CHARLEY TIDD COLE	- - - - -	Fairview, Major County
MRS. NETTIE CORYELL	- - - - -	Chickasha, Grady County
MRS. ELIZABETH DUMONT	- - - - -	Mangum, Greer County
MRS. ELVA R. DUVALL	- - - - -	Oakman, Pontotoc County
MRS. DAISY NEWCOMB ELDER	- - - - -	Medford, Grant County
MRS. CLARA EMMONS	- - - - -	Guthrie, Logan County
MISS GRACE M. EVANTS	- - - - -	Wilburton, Latimer County
MRS. IDA GIGRAY	- - - - -	Hobart, Kiowa County
MISS GLADYS GRAY	- - - - -	Okemah, Okfuskee County
MRS. LULA M. GREEN, <i>Assistant</i>	- - - - -	Okmulgee, Urban, Creek, Okmulgee Counties
MRS. SADA GROMMET	- - - - -	McAlester, Urban Agent, Pittsburg County
MISS BERTHA HOLCOMB	- - - - -	Anadarko, Caddo County
MISS MARGARET HOPKINS	- - - - -	Hollis, Harmon County
MRS. ETHEL L. HOWARD	- - - - -	Wewoka, Seminole County
MRS. ELLA INNES	- - - - -	Antlers, Pushmataha County
MRS. KATHRYN E. JACKSON	- - - - -	Sallisaw, Sequoyah County
MISS ALMA JONES, <i>Assistant</i>	- - - - -	Chickasha, Urban, Grady County
MISS JEAN ARCHER JONES	- - - - -	Wagoner, Wagoner County
MISS ALMA KEYS, <i>Assistant</i>	- - - - -	Oklahoma City, Urban, Oklahoma County
MRS. LAURA M. MCCLAIN	- - - - -	Buffalo, Harper County
MRS. ALMA T. MCCUSTION	- - - - -	Pawhuska, Osage County
MRS. FRANCES REED MCLEOD	- - - - -	Okmulgee, Okmulgee County
MISS ELLA NORA MILLER	- - - - -	Cherokee, Alfalfa County
MISS CORA MILTIMORE	- - - - -	Muskogee, Urban Agent, Muskogee County
MISS MABEL FERN MITCHELL	- - - - -	Holdenville, Hughes County
MRS. VIRDIE E. MOORE	- - - - -	Shawnee, Pottawatomie County
MRS. EVA M. MOSTELLER	- - - - -	Frederick, Tillman County
MRS. MARY H. NEWSOM	- - - - -	Beaver, Beaver County
MISS ESTHER NORTH, <i>Assistant</i>	- - - - -	Durant, Bryan County
MISS VERDA OAKLEY	- - - - -	Hugo, Choctaw County
MRS. CORA MAY OWENS	- - - - -	Purcell, McClain County
MRS. MAMIE WALKER PARKS	- - - - -	Oklahoma City, Urban Agent, Oklahoma County
MISS ETHEL F. PHELPS	- - - - -	Muskogee, Muskogee County
MISS JESSIE M. PRICE	- - - - -	Sapulpa, Creek County
MISS IRMA RAPP, <i>Assistant</i>	- - - - -	Enid, Urban, Garfield County
MISS ALICE E. RONALD	- - - - -	Coalgate, Coal County
MISS LILLIE ITA ROSS	- - - - -	Oklahoma City, Oklahoma County
MRS. MATTIE I. ROYSE	- - - - -	Elk City, Beckham County
MRS. MARY B. RUFF	- - - - -	El Reno, Canadian County
MRS. JOSIE C. SARTAIN	- - - - -	Tahlequah, Cherokee County
MISS JESSIE SHANNON	- - - - -	Tulsa, Tulsa County
MRS. MARY A. E. SHELTON	- - - - -	Poteau, LeFlore County
MRS. ADA SIMS	- - - - -	Perry, Noble County
MRS. E. RAMEY SIMS	- - - - -	Lawton, Comanche County
MISS MAUDE SMITH (col.)	- - - - -	Boley; Okfuskee, Oklahoma, Seminole, Okmulgee Counties
MRS. AUGUSTA N. SOUTHWICK	- - - - -	Enid, Garfield County
MRS. ROSA D. STEVENS	- - - - -	Sulphur, Murray County
MRS. CORA L. TAYLOR	- - - - -	Talihina, LeFlore County
MRS. ELIZABETH WARD	- - - - -	Atoka, Atoka County
MRS. MARY D. WARE	- - - - -	Tulsa Valley, Garvin County
MRS. JESSIE E. WATKINS	- - - - -	Clinton, Custer County
MRS. MYRTLE WATSON	- - - - -	Claremore, Rogers County
MRS. CHARLOTTE H. WEST	- - - - -	Idabel, McCurtain County
MISS EDNA I. WHITAKER	- - - - -	McAlester, Pittsburg County

OKLAHOMA A. & M. COLLEGE CADET CORPS

C. D. DUDLEY, Captain, United States Army, Retired - - - *Commandant of Cadets*
 MICHAEL McDONALD, Sergeant Major, United States Army, Retired - - -
 - - - - - *Assistant Commandant of Cadets*

Regimental Staff

CHAS. E. BELLIS	- - - - -	Captain and Adjutant
FLOYD M. BILYEU	- - - - -	Captain and Quartermaster
W. B. GOE	- - - - -	Sergeant Major
PHILIP WOHLBRANDT	- - - - -	Quartermaster Sergeant
ESTON HOSTETTER	- - - - -	Color Sergeant
ARMON WILLIAMS	- - - - -	Color Sergeant
JOHN FOLK	- - - - -	Chief Musician
FRANK MARTIN	- - - - -	Principal Musician
H. L. MOORE	- - - - -	Chief Trumpeter
RICHARD HURST	- - - - -	Drum Major
C. E. BREWER	- - - - -	Sergeant
S. R. STONE	- - - - -	Sergeant
NIX WEBB	- - - - -	Sergeant
PAUL SWIM	- - - - -	Sergeant
CARL STEVENS	- - - - -	Sergeant
R. T. TILTON	- - - - -	Sergeant

First Battalion

MAJOR, E. B. HILDEBRAND

SECOND LIEUTENANT AND BATTALION ADJUTANT, N. M. WALKER

COMPANY A

Captain	A. E. DARLOW
First Lieutenant	CHAS. H. ROBINSON
Second Lieutenant	J. L. GILLUM
First Sergeant	EUGENE KNIGHT
Sergeants	WARREN BAILEY
	H. A. GRAHAM
	J. R. MEEKER
	LESLIE BROWN
Corporals	H. B. JENKINS
	CREED HETHERINGTON
	LEONARD BURKHEAD
	RAY HARPER
	M. B. McMILLAN

COMPANY B

F. L. BEVER
RAY COLGLAZIER
W. A. OWSLEY
M. W. CHASE
JOE STAFFORD
J. C. WALLACE
WILBUR RAY
FRED AHRBERG
R. G. FEWELL
CLYDE WHILLOCK
PAUL S. TABOR
F. E. JENKINS
R. Q. GOODWIN

COMPANY C

Captain	C. H. JANEWAY
First Lieutenant	
Second Lieutenant	OTTO HATCHER
First Sergeant	G. W. FRIER
Sergeants	J. B. COWAN
	A. H. DAVIS
	CARL BOERNER
	E. C. FRY
Corporals	HAROLD RUSHER
	HOWARD CARLTON
	J. E. VARNUM
	GEO. M. MYERS

COMPANY D

MAX MAHAFFEY
ROSS WILEY
E. B. GREEN
JESSE HOKE
RAY JONES
ANDY ANDERSON
E. W. GRAY
G. McKEMIE
WENDELL BONHAM
JAMES SCHACHER
CLAY PARK
CARL VOYLES

Second Battalion

MAJOR, D. L. MANTLE

FIRST LIEUTENANT AND BATTALION ADJUTANT, L. E. CORRELL

COMPANY E

COMPANY F

Captain C. D. EMMONS
 First Lieutenant JOE HAM
 Second Lieutenant T. J. HATCH
 First Sergeant WALTER WEAVER
 Sergeants REED COLDIRON
 SIGMUND KATZ
 E. R. ETHRIDGE
 FABER GEORGE
 Corporals HARVEY KEMP
 HOMER H. HIRZEL
 GUY DENTON
 FRED STAFFORD

L. L. SWIM
 IVAN SOUTHWICK
 GLEN DOUGLAS
 E. F. PERCY
 H. M. HOUSTON
 T. D. CLUMP
 M. BARRON

 CLARENCE TAYLOR
 PAUL FRIEDEMANN
 L. A. BUESCHER
 H. J. SCHAEFER

COMPANY G

COMPANY H

Captain E. D. MARKWELL
 First Lieutenant W. C. SMITH
 Second Lieutenant HAROLD WITTE
 First Sergeant GLENN DILL
 Sergeants HENRY LABOHEM
 J. A. SHERBURNE
 S. C. CALLAWAY

 Corporals CHAS. MCKENNON
 EDDIE SADLO
 CARROLL CALAME
 CARL ANDERSON

WAYNE WOODRUFF
 L. S. WORTMAN
 H. E. JENKINS
 L. S. STOKESBERRY
 HERBERT LAHR
 OTTO FRIEDEMANN
 CLIFFORD HORNER
 LEONARD STARKE
 J. M. SMITH
 A. D. BULL
 MAURICE ROBINSON
 MARK FROST

STANDING COMMITTEES OF THE FACULTY, 1918-19

ENTRANCE

GUNDERSON, *Chairman*; MARONEY, BOWERS, ROCKEY, POFFENBERGER.

COLLEGE GOVERNMENT

MARONEY, *Chairman*; KEMP, BEESON.

TEXTBOOKS

RAIFORD, *Chairman*; JABLOW, MICHAELS

GRADES AND REPORTS

GUNDERSON, *Chairman*; CHAMBERS, TALBOT.

DORMITORY

BEESON, *Chairman*; KENT, HARTSOCK.

STUDENT PLAYS AND SOCIAL ENTERTAINMENTS

MOORHOUSE, *Chairman*; ARNOLD, MILLER.

COURSES OF STUDY

BOYD, *Chairman*; DEANS OF SCHOOLS.

LITERARY SOCIETIES

ROCKEY, *Chairman*; PELSMA, MALONE.

CATALOG AND COLLEGE PUBLICATIONS

STEMMONS, *Chairman*; DEANS OF SCHOOLS.

SCHEDULE

LANE, *Chairman*; McELROY, DOWELL.

DINING HALL SUPPLIES

DOERING, *Chairman*; HASTINGS, OTEY.

STUDENT LABOR

BOYD, *Chairman*; HARTSOCK, ROLFS.

ATHLETIC COUNCIL

MOORHOUSE, *Chairman*; GALLAGHER, KEMP.

AFFILIATED SCHOOLS

DUNLAVY, *Chairman*; CALDWELL, McCARREL.

LIBRARY

KEMP, *Chairman*; CHAMBERS, MOORHOUSE, KNIGHT.

RULES AND REGULATIONS

KEMP, *Chairman*; MARONEY, KENT.

GRADUATE COURSES

SANBORN, *Chairman*; BOWERS, GUNDERSON, CHAMBERS.

AGRICULTURAL PUBLICATIONS

KNIGHT, *Chairman*; BENTLEY, PRESIDENT.

ROOMING AND BOARDING HOUSES

BEDINGER, *Chairman*; CALDWELL, KENT, DAANE.

ADVANCED STANDING

WHITENTON, *Chairman*; CHAMBERS, RAIFORD, POFFENBERGER, DEANS OF SCHOOLS.

FORENSIC COMMITTEE

PELSMA, *Chairman*; ROCKEY, CALDWELL, ARNOLD, HALL.

CONVOCATION PROGRAM

HARTSOCK, *Chairman*; MICHAELS, BENBROOK.

OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE

The Oklahoma Agricultural and Mechanical College is a State and Federal institution of higher and broader learning, offering technical, scientific education to white persons 14 years of age and over, and carrying valuable scientific information to many thousands who can never visit or attend a college.

The service rendered by the A. and M. College to the State is three-fold:

(1) To educate and train in all that relates to applied science, the industries and citizenship, by affording both liberal and technical studies, laboratories, shops and fields for development of character, the mind and industrial efficiency—the College proper.

The A. and M. College consists of seven schools comprising thirty-five departments. These schools offer distinct courses of instruction to those applying for graduation. The Schools of Agriculture, Engineering, Home Economics, Science and Literature, Education, and Commerce and Marketing offer the degree Bachelor of Science (B. S.) to graduates, and Master of Science (M. S.) to those completing a postgraduate course.

(2) To carry forward investigations in agriculture of a research or experimental nature, to learn and disseminate new facts of importance to farmers of the State—the Agricultural Experiment Station.

(3) To instruct citizens of the State, who are not residents at the College, and their families, in the best proven methods of economic agriculture and domestic science—the Extension Division.

Tuition is free in all courses and departments. The College is supported by the Federal Government and by the State of Oklahoma as a part of the free school system.

LAWS CONCERNING THE COLLEGE

The A. and M. College owes its origin to a bill offered by United States Senator Morrill of Vermont in 1862, which provides funds for one such institution of learning in every State of the Union, and sets aside certain public lands from which endowments have come to each of these State and Federal Colleges. Therefore these institutions are known as "The Land Grant Colleges".

This Act of Congress, approved July 2, 1862, gave to each State which accepted its provisions 30,000 acres of Government land for each of its Representatives in Congress, the proceeds to be applied to the endowment and maintenance of colleges

"where the leading subject shall be, without excluding the other scientific and classic studies, and including military tactics, to teach such branches of learning as are related to agriculture and mechanic arts, in order to promote the liberal and practical education of the industrial classes in the various pursuits and professions of life."

Again, in 1887, Congress provided for an Agricultural Experiment Station in connection with each of the Land Grant Colleges:

"That in order to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture and to promote scientific investigation and experiments respecting the principles and application of agricultural science, there shall be established under the direction of the College in each State or Territory, established - - - in accordance with an Act donating public land to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts' . . . a department to be known and designated as an 'Agricultural Experiment Station'."

The First Legislature of the Territory of Oklahoma adopted a resolution assenting to and accepting the provisions of Congress and established the Oklahoma Agricultural and Mechanical College in Payne County, at Stillwater, December 25, 1890.

Congress also provided 250,000 acres of public land as a permanent endowment for the College in the Enabling Act granting statehood to Oklahoma.

The Oklahoma Constitution provides that the State Board of Agriculture shall be the Board of Regents of the A. and M. College in the following:

"Said Board (of Agriculture) shall be maintained as a part of the State Government and shall have jurisdiction over all animal quarantine regulations and shall be the Board of Regents of all State Agricultural and Mechanical Colleges, . . ."

The Oklahoma Constitution is the only State Constitution recognizing the fundamental importance of agriculture and domestic science. It declares that—

“The Legislature shall provide for the teaching of agriculture, horticulture, stock feeding and domestic science in the common schools of the State.”

According to the laws of Oklahoma *“The Agricultural and Mechanical College shall be the technical head of the Agricultural, Industrial and allied Science system of education in Oklahoma”*.

In 1914 Congress adopted the Smith-Lever Bill, which provided:

“That in order to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same, there may be inaugurated in connection with the college or colleges in each State . . . agricultural extension work which shall be carried on in cooperation with the United States Department of Agriculture. . . . That cooperative agricultural extension work shall consist of the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in said colleges in the several communities, and imparting to such persons information on said subjects through field demonstrations, publications, and otherwise; and this work shall be carried on in such manner as may be mutually agreed upon by the Secretary of Agriculture and State agricultural college or colleges receiving the benefits of this Act.”

Through the acceptance of the terms of this Act by the Oklahoma State Legislature at the following session, the Agricultural and Mechanical College became the head of such cooperative extension work in Oklahoma.

The Reserve Officers Training Corps of the College was created as a result of an Act of Congress adopted in 1916 providing that:

“The President is hereby authorized to establish and maintain in civil educational institutions a Reserve Officers Training Corps which shall consist of a senior division organized at universities and colleges requiring four years of collegiate study for a degree, including State universities and those State institutions that are required to provide instruction in military training under the provisions of the Act of Congress of July 2, 1862, donating lands for the establishment of colleges where the leading object shall be practical instruction in agriculture and mechanic arts, including military tactics, etc.”

The Sixty-fourth Congress adopted what is known as the Smith-Hughes Bill, entitled:

“AN ACT to provide for the promotion of vocational education; to provide for cooperation with the States in the promotion of such education in agriculture and the trades and industries; to provide for cooperation with the States in the preparation of teachers of vocational subjects; and to appropriate money and regulate its expenditure.”

SOURCES OF REVENUE

The Agricultural and Mechanical College derives support from both Federal and State Governments:

1. A fund derived from the United States Government known as the "Morrill Fund". This fund can be expended only for instruction of students in literature, languages, the sciences, and, by recent amendment, to prepare school teachers in the principles of agriculture and home economics.

2. The United States Government funds for investigation of scientific and agricultural matters of importance to farmers, and for publishing the results of such tests and experiments, known as the Hatch and Adams Funds. These support the Oklahoma Agricultural Experiment Station.

3. A fund derived from the rentals of public lands donated by Congress to the Oklahoma A. and M. College under the Enabling Act granting statehood to Oklahoma, known as the "Land Lease Fund". This fund may be used for operating expenses of the College proper.

4. A fund appropriated annually or biennially by the State for buildings, repairs and extensions to the permanent equipment of the A. and M. College.

5. The Smith-Lever Bill, adopted by the Sixty-Third Congress, provides increasing support for cooperative agricultural extension work for a period of ten years, when the permanent basis of this support is reached. This fund is dependent upon cooperative support by the State and is available only for agricultural extension work.

6. An allowance established by an Act of Congress organizing the Reserve Officers Training Corps, and which provides pay and uniforms to certain military students under prescribed restrictions.

INSTRUCTION FOR TEACHERS

The A. and M. College prepares teachers of science, of the industrial subjects and of related common branches.

The College has taken full advantage of the Smith-Hughes Bill, making provision for the training of teachers in agriculture,

the trades and industries. Prospective teachers of vocational branches may be assured that they will receive the fullest opportunity at A. and M. College to prepare for this work.

To supply the State with trained teachers in industrial subjects, as contemplated by existing State laws, a School of Education is maintained.

The Summer Normal.—To further supply the demand in Oklahoma for trained teachers, the A. and M. College conducts a complete summer normal institute for teachers. Members of the College Faculty are available as instructors, and specialists of note are also employed to assist in making the instruction of greatest value. Attendance upon the summer term assures full credit for training demanded under the school law quoted above.

By an Act of the State Legislature, A. and M. College is enabled to issue teachers' state life certificates.

Acceptance by the State of the terms of the Smith-Hughes Bill opens great opportunities for the A. and M. College. This measure provides for the training of teachers, supervisors and directors in agriculture, home economics and the trades.

LAND, BUILDINGS AND EQUIPMENT

The A. and M. College campus and farm embrace a tract of 1,000 acres.

The present buildings were erected by the State at a cost of more than half a million dollars, and they are equipped with the latest and best appliances and scientific apparatus, representing an outlay by the State and Federal Governments of almost as much. All buildings are steam heated, electric lighted, and have sewer connections.

The Sixth Legislature appropriated \$200,000.00 for new buildings at A. and M. College, and of this sum \$100,000.00 will be used for an Armory-Gymnasium, and a similar amount for a Science Hall.

The principal buildings are:

Engineering Building.—Erected 1912. Cost \$74,994.50. Three stories. Covers 160 by 80 feet. Reinforced concrete and brick with stone trimmings. On the ground floor are located the steam

and hydraulic laboratories and boilerroom, the electrical laboratory, the civil engineering laboratories for testing cement, masonry and steel, rooms for surveying instruments, storage-batteries, standardizing room, men's locker room, and office. On the next floor are the engineering library, the physical laboratory and lecture room, four other lecture rooms for the various departments, and rooms for photometry, physical apparatus, stock and women's lockers. On the top floor are the quarters for the Department of Architectural Engineering, consisting of a lecture room, library and reading room, and large drafting room. There are also on this floor four drafting and lecture rooms for the use of other departments, rooms for records, and offices for instructors.

Shop Building.—Erected 1912. Cost \$4,420.00. Stone and brick building. Forty by 200 feet; for a depth of 80 feet it is two stories high, and the balance one story. Provides accommodations for the carpenter, machine and blacksmith shops and foundry, and has up-to-date toolrooms, etc., complete.

Heating Plant.—Erected 1912. Cost \$40,000.00. Furnishes heat and light for all College buildings and power for the shops.

Chapel Building.—Erected 1912. Cost \$84,075.28. Covers a ground area of 97 by 150 feet. Reinforced concrete and brick with stone trimmings. Sloping floor and large balcony. Roomy stage, with dressing rooms and accessories. Seating capacity 2,500.

Woman's Building.—Erected 1910. Cost \$62,000.00. Contains gymnasium, dining hall and kitchen, reception hall, parlor, classrooms for domestic science and domestic art, and living rooms for the accommodation of girl students. Rooms are electric lighted, steam heated, and all halls are equipped with lavatories and baths. The Dormitory is under supervision of a matron.

Boys' Dormitory.—Erected 1910. Cost \$25,000.00. Brick construction. Three stories. Equipped with all modern conveniences.

Chemistry Building.—Erected 1898. Cost \$12,000.00. Two-story brick structure with basement. Main portion 64 by 42 feet, wing 54 by 32 feet. Houses chemistry laboratory of the Experiment Station, classrooms and laboratories for instruction in agricultural and general chemistry.

Library Hall.—Erected 1901. Cost \$48,417.42. Brick and stone building, two stories and basement, 76 by 72 and 111 by 65 feet. It is used in addition to accommodation of library and reading rooms, for the Departments of Zoology and Veterinary Medicine, Drawing and Art Work, with lecture rooms, toilet rooms, etc., in the basement.

Central Building (the original building of A. and M. College).—Erected 1892. Cost \$25,000.00. Two-story brick and stone building with basement, 66 by 60 feet. Used for classrooms and printing plant.

Morrill Hall.—Erected 1906. Cost \$74,600.00. Three stories. Brick and stone construction, 76 by 166 feet. Named in honor of Senator Justin S. Morrill, by Act of the Legislative Assembly providing for its construction. Contains quarters for administration and business offices of the A. and M. College and Agricultural Experiment Station, and lecture rooms and laboratories for the Departments of Agronomy, Animal Husbandry, Horticulture, Botany and Entomology, and the central headquarters of the extension forces.

Dairy Building.—Erected 1904. Cost \$7,947.74. Brick structure of two stories, 60 by 30 feet, and one-story addition of 50 by 32 feet. Contains classrooms, laboratories, and a commercial creamery for experimental and instructional purposes.

Agronomy Building.—Erected 1906. Cost \$11,182.91. Two-story brick building. Houses Military Department, classrooms, farm machinery laboratory, etc. Gymnasium occupies one wing of building.

Livestock Judging Pavilion.—Erected 1910. Cost \$15,239.93. Two-story brick structure, affording accommodations for study of the fine livestock owned by the College. Contains classrooms in addition to an amphitheater with a seating capacity of 500, and an arena 50 feet square.

Old Engineering Building.—Erected 1902. Cost \$8,000.00. Brick and stone structure of two stories and basement. Occupied by Departments of Music and Business Training.

Greenhouse.—Erected 1909. Cost \$5,000.00. Part of the equipment of Departments of Horticulture and Botany.

Poultry Plant.—Main building for laboratories and classrooms was built in 1913 and cost \$2,978.00. In addition the plant comprises more than a score of colony houses, a long laying house and a complete equipment.

Apiary and Insectary.—Erected 1913. Cost \$1,936.30. Houses laboratories for entomology and beekeeping. Cupola is fitted with modern insect trap to aid in study of winged insects.

Barns.—Brick barn, 60 by 96 feet, cost \$7,500.00; dairy barn, cost \$8,000.00; sheep barn, \$8,000.00; hog barn, \$1,000.00; veterinary barn, cost \$2,402.35.

REQUIREMENTS FOR ADMISSION

All persons who desire to enter any School of the College should make application to the Registrar as early as possible before the opening of the first or second semester. Those who desire to be admitted by certificate should make application as soon as possible after their graduation from the high school. To all applicants a blank will be furnished which they are expected to fill out and file with the Registrar in advance of entrance. This certificate must give in detail, concerning each subject which the applicant has studied in the school, the length of time in weeks, the number of recitations per week, and the grade or mark indicating his proficiency. Upon receipt of this certificate a permit to register will be sent the applicant by the Registrar in advance of his coming in September. This will greatly facilitate the work of entrance. The student will present this permit at the registration room and will not be compelled to wait his turn to meet the Entrance Committee.

Degree Courses

Applicants for admission to the degree courses should be 16 years of age or over and of good moral character. They will be required to present 15 units of entrance credits for admission to the Freshman class. The 15 units required are distributed in the most advantageous way for admission to the various College courses in the Schools of Agriculture, Engineering, Home Economics, Science and Literature, Education, Commerce and Marketing and Veterinary Medicine, as indicated in the following table. One who offers 14 such units will also be admitted as a

Freshman, but will be conditioned in 1 unit. Such deficiency must be made up by the end of the second year that the student is in attendance.

	Agriculture	Engineering	Home Economics	Science and Literature	Education	Commerce and Marketing	Veterinary Medicine
English	3	3	3	3	3	3	3
Algebra	1	1½	1	1½	1	1	1
Plane Geometry	1	1	1	1	1	1	1
Solid Geometry		½					
*Science	1	1	1	1	1	1	1
**Foreign Language		1		1			
Social Science Inc. History	1		1		1	1	1
Required	7	8	7	7½	7	7	7
***Electives	8	7	8	7½	8	8	8
Total	15	15	15	15	15	15	15

*Physics required in Agriculture, Engineering and Science and Literature courses.

**Modern language or Latin required in Science and Literature course.

***To make up the total of 15 units the applicant may use as electives any accredited work satisfactorily completed in an accredited high school. A unit is defined to be the work done in an accredited high school or academy in five recitation periods a week for one school year.

Deficiencies

The course in the Secondary School of the A. and M. College, offered in connection with the College, give every needed opportunity for students of the College to make up anything lacking in their preparation for entrance. All such entrance deficiencies must be made up by the end of the second year that the student is in attendance.

Advanced Standing

Applicants from other institutions of approved standing who offer collegiate courses or professional courses in excess of the requirements for admission, will be assigned such advanced standing as may be determined by the Committee on Advanced Standing.

Before considering the claims of any applicant for advanced standing, the committee will require, in addition to the data, specified above (Requirements for Admission), official certificate showing: (a) that the applicant has been honorably dismissed; (b) what admission requirements were satisfied by the applicant in the institution from which he comes (and for this purpose, in addition to the certificate, a catalog of date concurrent with his admission will be required); (c) the duration of his attendance;

(*d*) the character of the laboratory work done in preparatory schools. (This can be satisfied by submitting the student's laboratory notebook.)

All claims for credit must be specified at the outset. Claims not so specified will not be considered after the formal determination of credit, unless the work on which they are based was done after the previous claim was filed.

A. College Credit for College Work:

Students transferring from other colleges will be admitted to the same standing in this College, provided that (*a*) the admission requirements of the college from which the transfer is made are equivalent to those of the Oklahoma A. and M. College; (*b*) the courses taken are standard college courses equivalent to those offered by the Oklahoma A. and M. College; (*c*) the maximum amount of credit granted shall not exceed that obtainable during the same period of time at this College, i. e., 16 credits per semester; (*d*) if the bachelor's degree is sought, the total credit shall not exceed 96 semester hours, one year of resident work being the minimum requirement for a degree.

B. College Credit for Normal School Work:

Students who have completed work of college rank in State Normal Schools may receive college credit on the following conditions: (*a*) students who have completed the equivalent of 15 standard entrance units before entering a State Normal School, and who have been graduated from a two years' professional course in such a school may be granted 60 hours credit; (*b*) students who enter normal schools without completing the equivalent of the 15 standard units may receive advanced standing for that work only which remains after the entrance requirements of this College have been satisfied. In such cases the total amount of college credit shall not exceed 30 semester hours.

C. College Credit for Preparatory Work:

Students who have excess credits for admission to College may be allowed college credit on the following conditions: (*a*) the work on which college credit is sought must have been done, after graduation from a high school, in a postgraduate course extending over at least one semester; (*b*) the credit allowed shall not be more than half the time given, i. e., one year of such work

in high school shall not be credited as more than one-half year of college work; (c) credit so listed is provisional and is formally confirmed by the Registrar only in case the student maintains during the first semester of resident work an average grade of 75 or better.

D. Advanced standing may also be obtained by written examination, conducted in the usual manner, after the applicant has satisfied the head of the department concerned that he has had sufficient instruction in the subject. The grade shall be reported to the Registrar.

Special Students

Persons of mature age who do not possess all the requirements for admission and are not candidates for a degree will be permitted to enter any of the courses in the different Schools upon giving satisfactory evidence to the Dean of that School that they are prepared to take advantageously the subjects which they desire. If they desire to take advanced subjects, such as are offered in the Junior and Senior years, they must show special preparation or special necessity for such courses. Persons applying for admission on the above basis are required to present a detailed statement of their preparatory work at the time of their admission.

Secondary School of the A. and M. College

Non-Vocational Course—College Entrance

The minimum age limit is 14 years. Applicants for admission living in towns having high schools must be 16 years of age.

An eighth grade diploma or certificate of graduation from the common schools admits.

Other applicants must pass a satisfactory examination in reading, spelling, penmanship, geography, United States history, grammar and arithmetic.

Vocational Courses—Agriculture, Home Economics and Trades

Age minimum is 14. Scholarship is the same as for the Secondary School, except that applicants may be admitted with deficiencies who have finished the seventh grade or equivalent, and who are able by reason of age, maturity and experience to do the work prescribed.

Business Course

Application for admission to the Business Course must have completed eighth grade subjects and be 18 years of age.

REQUIREMENTS FOR GRADUATION**Leading to Bachelor's Degree**

In all of the four-year courses of study leading to a degree, a student must earn 128 credits, exclusive of any credits given for military science and physical training, before being eligible for a degree. A credit is one hour of theoretical work carried for one semester, three hours laboratory work being equivalent to one credit. Students are expected, as a rule, to carry 16 hours' credit work per semester, but by special arrangement with adviser and Dean the number taken may be varied from 12 to 20 credits per semester.

Requirements for Master's Degree

1. Conditions of Candidacy.—A graduate of any School of this College, or of another institution in which the requirements for bachelor's degree are equivalent, may become a candidate for the corresponding master's degree by making application on a blank provided for the purpose.

2. Applications.—An application in outline form must be submitted for approval to the Committee on Graduate Courses not later than September 15.

The outline shall be submitted in triplicate to the Committee on Graduate Courses, signed by the major professor, showing the nature and amount of major and minor work in theory and practice hours and equivalent credit hours.

On the reverse side of said outline, the major and minor subjects (if not designated in the College catalog) shall be given in detail, including all topics to be considered. Subjects in minor work shall be approved, with signature, by heads of departments concerned.

3. Amount of Work.—The minimum requirement shall be not less than 15 credit hours per week throughout one year.

4. Nature of Work.—The work shall be arranged into major and minor subjects; at least one-half of the work shall be in the major subject. The remainder of the work shall be done in other departments than that in which the major work is done.

5. Residence.—One semester's residence work is required of every candidate. Graduates of this College may be permitted in special cases to obtain one semester's credit at any other approved institution.

6. Thesis.—A thesis upon some subject connected with the major study is required unless waived by the committee, upon recommendation of the major professor. The subject must be submitted for approval to the chairman of the Committee on Graduate Courses before October 15. The thesis must cover some line of original research work under the supervision of the major professor, and the thesis as a whole must be approved by the major professor and the Dean of the Division.

Two typewritten copies of the thesis, in specified form, shall be deposited, one with the major professor, and one with the College librarian, on or before May 15.

7. Degrees.—The degrees offered are: Master of Science in Agriculture, M. S. Agr., and Master of Science in the respective branches of engineering, e. g., M. S. (C. E.), etc.

8. Fees.—Before receiving the degree, the candidate shall pay a diploma fee of \$10.00, and any unpaid laboratory fees.

Professional Degrees in Engineering

A graduate of the School of Engineering who has been engaged in acceptable professional work for a period of not less than four years since graduation, who has been in responsible charge of such work for at least one year of this period, and shall present a satisfactory thesis, may be recommended to the Board of Regents for one of the following degrees: Mechanical Engineer (M. E.), Electrical Engineer (E. E.), Civil Engineer (C. E.), Architectural Engineer (A. E.).

A candidate for a professional degree must file with the Committee on Graduate Courses, at least one year before the granting of such degree, a detailed statement of his experience. If this record is approved, the committee will turn same over to the head of the department under whom the work for the desired degree most properly falls. The head of this department will then confer with the applicant in regard to the thesis and will require monthly reports from him thereafter as to his progress. Two bound copies of the thesis must be filed not later than April 1st of the year in which he proposes to qualify for the degree.

COST OF ATTENDANCE**Trust Fund**

A fee of \$2.50 will be collected at the beginning of each semester to cover actual expenses incident to breakage and use of materials in the various laboratories of the College. There will be no refund.

Board and Rooms

Furnished rooms in the Woman's Building or in the Boys' Dormitory (including heat, light, water, etc., two students occupying each room) are provided at \$3.00 per month each, payable in advance. Application for dormitory accommodations must be made in writing. Those occupying rooms in dormitories must furnish towels, bed linen and covers. The two dormitory buildings contain bathrooms and all necessary facilities, and are thoroughly sanitary, heated by steam and lighted with electricity.

Board in the College dining hall is provided on the cafeteria plan at actual cost. The student pays for what he selects and the cost per student varies according to the amount he eats. The average cost is about 18 cents a meal at the present time. The cafeteria plan provides opportunity for a larger menu from which to choose, and in general is more satisfactory than the plan of having a set table and no choice.

Board with room in private families can be obtained for \$4.00 to \$5.00 per week. Furnished rooms, \$3.00 to \$5.00 per month, if two occupy the room.

Other Expenses

The total cost of attending the A. and M. College courses embraces the items of board, books, clothing and minor incidental expenses of a personal character. These may be safely estimated at \$160.00 to \$200.00 for nine months. Sixty-three percent of the students materially reduce their expenses below the figures given by working in the several departments of the A. and M. College and in the City of Stillwater, and many earn all personal expenses.

Amount Required to Begin

Those students of limited means desiring to enter the A. and M. College should have some \$75.00 available with which to bear

the first items of personal expense and make sure of some months' consecutive study. This amount is estimated for young men to include:

Board and room, two months.....	\$ 36.00
Books, etc.,	8.00
Incidentals	5.00
Military uniform—hat, cap, shirt, coat, trousers and leggings, about	18.00
Personal expenses	<hr/> \$ 67.00

With such sum in hand or available, the industrious student may, by his own efforts, secure three or four months, or even a longer period, of study in the A. and M. College. The same estimates will apply to young women if cost of uniform be deducted. Extravagance in all forms is discouraged. Freshmen and Secondary School boys must supply themselves with gymnasium suits costing \$4.00. Girls of the Secondary School, Freshman and Sophomore classes must supply themselves with gymnasium suits costing \$6.00.

A senior division of the Reserve Officers Training Corps has been established under the rules of the War Department. This entitles Freshmen, Sophomores, Juniors and Seniors who take drill to receive from the Government, free of charge, a complete uniform, consisting of cap, shirt, coat, breeches, leggings and shoes.

During the present emergency, the Government, being unable to furnish uniforms to college students, will reimburse those students (14 years of age and over) who enter at the beginning of the first semester and provide their own uniforms in the sum of \$14.00. Those entering at the beginning of the second semester and providing their own uniforms will be reimbursed in the sum of \$7.00.

In addition to the above, Juniors and Seniors who take the advanced course in military science will be paid at the rate of \$9.00 per month by the Government.

Approved Rooming Houses

Comfortable and desirable homes in Stillwater are listed as "approved rooming houses" for male and female non-resident

students by the Faculty Committee on Assignment to Rooms. Students are not permitted to room in other than approved rooming houses.

Advisers to Students

To bring about a closer relation between students and members of the Faculty and parents, and for the purpose of safeguarding every interest of the individual student, the A. and M. College has adopted an "advisory system" which applies to all students. A small number of students are assigned to each instructor, who is known as their adviser for the year, and whose duty it is to know each of them personally, and to meet them from time to time. The adviser endeavors to become familiar with the conditions surrounding his students. In many instances he selects studies suited to the student's need or adjusts the student to his work and surroundings. Parents should not hesitate to write to advisers or to the President concerning matters that may have to do with the students' comfort and progress in their studies.

Care of Health

The health of all students is a matter of chief concern to the officers of the A. and M. College. The rules require that all cases of illness be reported promptly. A responsible physician is employed who attends all students without charge in cases of illness or injury received in the line of duty, except cases of major surgery. Sickrooms for the better accommodation of boys and girls suffering from illness are provided, without additional cost, in each of the dormitory buildings.

All students have access to the separate gymnasiums for boys and girls. Games and sports are encouraged for their mental relief and the physical relaxation afforded. These exercises, taken indoors and in the open air, followed by baths, and with the privilege of consultation on matters of personal health, afford valuable safeguards to the health of every student who attends the A. and M. College.

Help

Students are employed on the farm, in the creamery, dining hall, the Printing Department and elsewhere. This, in connection with such opportunities as are offered in the city, has enabled a

very considerable number of students practically to make their own way through their college courses. The amount a student can earn depends almost entirely upon his thrift and energy, and the time he can spare from his studies. The rate of pay is 20 cents per hour. Skilled labor commands a better rate of pay—some line of expert work netting the students 25 cents an hour. It must not be gathered that the A. and M. College engages to afford employment sufficient to enable every worthy young man to complete the course without other resources. With the growth of the institution has come an increased demand for this employment which it is impossible to meet in full, yet very few students have been compelled to leave College in recent years on account of inability to secure work.

GENERAL INFORMATION

The seat of the Oklahoma Agricultural and Mechanical College is Stillwater, in Payne County, a "college town" of 5,000 people, most beautifully and healthfully situated at an elevation of 915 feet above sea level. Payne County was one of the seven original counties of Oklahoma Territory and is named for David L. Payne, the noted pioneer, who first settled near the present site of the College. Stillwater citizens and students of the A. and M. College enjoy the advantages of electric lights, telephones, free delivery of mail, a city water system, sewerage, paved streets, and a very complete system of brick walks shaded continuously by trees. Stillwater is on the Santa Fe Railroad (Arkansas City and Pauls Valley branch). The main connections are at Guthrie, Pawnee, Shawnee, Cushing and Davenport.

Moral Influences

Eight leading churches are represented in Stillwater and the students are encouraged to attend and participate in their services. As a matter of fact, the Sunday schools and the young people's societies of the several churches in Stillwater are sustained very largely by the students from the A. and M. College.

A Young Men's Christian Association and a Young Women's Christian Association are actively engaged in the numerous and beneficial lines of work characteristic of these organizations among students. These student organizations are not merely helpful to their membership, but exert a wholesome influence on the moral life of the A. and M. College.

Grades and Reports

The semester grade is the average of the daily grade and the grades made in tests, and in making up the final grade for the semester, the semester grade shall count two-thirds and the final examination grade one-third. Reports showing the grades and standing of students are sent to parents and guardians at the end of each semester. Attention is particularly directed to these reports; they are the best indication of the work and standing of the student.

Students receiving a condition in a subject must remove the condition before the end of the third week of the following semester.

Awarding of Points and Honors

Points shall be awarded, exclusive of military and physical training in the Freshman and Sophomore years, in accordance with the following:

Grades between 93 and 100, 3 points per credit hour.

Grades between 85 and 92, 2 points per credit hour.

Grades between 75 and 84, 1 point per credit hour.

Grades between 70 and 74, 0 points per credit hour.

Requirements for Graduation

Exclusive of military and physical training in the Freshman and Sophomore years, 128 hours credit and 96 points.

Requirements for Graduation in More or Less than Four Years

No student is permitted to register for more than 16 hours or less than 12 hours in a semester of a regular College course for which a degree is granted, exclusive of military and physical training in the Freshman and Sophomore years, with the following exceptions: (a) The privilege to register for more than 16 hours is denied if in the previous semester any of the grades E, F, or an avoidable I has been received, or less than 16 hours have been successfully completed; (in the case of an unavoidable grade I, arrangements for its removal, within a definite, reasonable time, must be made satisfactory to the student's adviser and dean); (b) students free from the limitations of rule (a) may register for one extra hour above 16 hours for every 2 points earned in the previous semester in excess of 12 points for not more than 20 hours, and 1 extra hour above 20 hours for every 3

points earned in excess of 20 points; (c) requirements for advanced standing concerning credit hours and points, extra hours, and graduation, shall be determined by the Committee on Advanced Standing from grades and work presented in proportion to the time required to complete the course; (d) students earning less than 12 points in a semester may register the next semester on probation as follows: The maximum of 16 hours or the minimum of 12 hours may be taken on condition that upon each monthly report there are no grades E, F, or avoidable I; (e) students failing to meet the requirements of (d) must reduce the amount of their work as follows: For every point below 12 points earned in the previous semester, 1 hour reduction from the total of 16 hours, adjustment to be made by the student's adviser and Dean; (f) failure to carry 12 hours with no grades E, F, or avoidable I, shall render student subject to reduction to the next lower class by the Registrar, or upon the approval of the President, temporary suspension. -

Honors

Class honors are awarded each semester to those students earning 35 points or more during that semester. They shall be designated Freshman, Sophomore, Junior or Senior, first or second semester honors.

First final honors for 85 points earned in the Freshman year.

Second final honors for 170 points earned in the first two years.

Third final honors for 255 points earned in the first three years.

Honors for 300 to 339 points earned at the end of Senior year.

High honors for 340 or more points earned at the end of the Senior year.

The names of all students earning honors will be printed in a special bulletin to be designated "HONOR BULLETIN" at the beginning of each semester and at commencement time.

The Honor Bulletin for each year will be included in the College catalog of each year.

Theses

In some departments a thesis is required for graduation, and in other departments it is elective. Students intending to write

theses must select the subject not later than the last week of the first semester, the subjects to be approved by the departments having charge of the work.

Diploma

Each candidate for graduation in the four-year courses shall deposit with the Registrar \$2.50. Candidates for graduation in the Business Course and in the Vocational Courses shall deposit with the Registrar \$1.00 before the student is recommended for graduation.

Library

The College library consists of all the books belonging to the College. The Experiment Station library is correlated with it. The library occupies five large rooms and an office in the Library Building. The first and largest room is used as a reference and readingroom, and contains all the general reference books, magazines, periodicals, etc. The other four rooms are used as stack rooms. The library is open twelve and one-half hours each day and three hours on Sunday. The library is classified according to the Dewey Decimal System, and indexed in a dictionary card catalog. The library is a depository for all Government publications. There are now 26,503 bound volumes in the library. There are over 90,000 unbound pamphlets, which are now being arranged and classified for quick reference work. In addition, the library possesses over 50,000 unbound periodicals, which are rapidly being bound. The library receives 490 of the leading newspapers and periodicals of the United States. Twelve of the large dailies of the United States are kept on the newspaper racks for the use of the students, and most of the magazines indexed in the Reader's Guide are on our shelves. Daily attendance records for the past year have run as high as 1,000.

Purpose.—It is the purpose of the Librarian not only to supplement the work of every department, but also to make the library the center of all literary activity of the College. Every effort is made to assist the students in the use of the reference books, catalogs and indexes, and to familiarize themselves with the best books and use of bibliographies.

Valuable Gifts.—The library has been enriched by the gift from the Carnegie Institution of Washington of all their publica-

tions, and also by the studies from the Rockefeller Institute of Medical Research. Each of these great institutions has placed the library on the "Omnia List". Other valuable gifts include several thousand periodicals and several hundred books.

Regulations.—Books may be drawn by all the officers and students of the College and by others having special permission. Books are drawn for a period of two weeks. General reference, reserve books, periodicals and dictionaries must be consulted in the readingroom, and not drawn from the library. Citizens and visitors, whether connected with the College or not, are invited to make free use of the reading and reference room, and assistance in reference work will gladly be given them.

Library Science Courses—Course A.—In connection with the English Department, a course in Elementary Library Science is given. This course does not aim to fit students for library positions of any kind, but to familiarize the students in the use of the library and general reference books in connection with their college work. Laboratory work is given in the library in connection with the lectures and recitations. This course is required of all Freshmen.

Course B.—This is a general course in Library Science, giving the student a deeper insight into the use of the library and helping him to find the material wanted in the quickest, most logical way. It includes a brief study of the Dewey Decimal Classification, the card catalog and other tools of the library. Much time is spent on the use of reference books, and some attention is given to library methods. This course is of special benefit to those contemplating high school teaching. This is a lecture course of one hour per week with some practice in the library. It carries with it one hour theory credit. It is optional with all classes and is given by the Librarian. Scheduled for Tuesday, sixth hour.

Literary and Other Societies

General literary societies are always active among the students. The Philomathean and the Omego Literary Societies enroll a large percent of the entire student body, and, in addition, a number of clubs and societies have been formed by students specializing in science, engineering, pedagogy, agriculture and domestic science for the purpose of supplementary work and inves-

tigation. The Athletic Association has charge of all local College sports, the "Tug-o'-War" and Field Day exercises, and of the interest of the institution in the interscholastic and intercollegiate meets. The Oratorical Association has charge of the representation of the A. and M. College in the preliminary intercollegiate oratorical contests.

Of Interest to Girls

About one-third of the students of the Oklahoma Agricultural and Mechanical College are young women. All courses are open to them except Veterinary Medicine.

The course in Home Economics is of great practical value to young women because it is carefully arranged to give science with practice in the best possible proportion and order.

In order to meet the demand for a more general course, the "Science and Literature" course has been established. This course will be found to be especially adapted to the needs of young women desiring higher education in literature, languages, history, etc., and offers training in music, elocution and domestic science.

A complete teacher-training course is offered by the School of Education to those who desire professional training for teaching in high schools and colleges. A State life certificate is awarded those graduating in this course.

Athletics, Military Drill and Discipline

The constant purpose of the A. and M. College is to develop "sound minds in sound bodies" and to train the moral faculties. Clean sports and games on the field cultivate the mental and moral sides of the individual as well as the physical side, while affording needed occasion for relaxation and the repair of muscular and nerve tissues. Ball games and track athletics are encouraged by the A. and M. College authorities.

The Gymnasium for Men is under the supervision of the Physical Director. The exercises in the Women's Gymnasium are directed by competent lady instructors.

The State Interscholastic Track and Field Meet is held on the A. and M. College grounds annually, to which the schools of all sections of Oklahoma are invited.

Baseball and football are provided with suitable grounds, and tennis courts are at the disposal of students.

Military drill is given during the first two years of the College course for its physical effects, and as required by the Federal law establishing this and other similar colleges. The good results of this drill are quickly noticed in the improved health and carriage and deportment of those coming under its helpful influence. Young men, especially, need such training to give them the erect carriage and strong physique that marks the man of military training.

A commissioned officer of the United States Army is assigned to duty regularly at the A. and M. College as Commandant of Cadets. Instruction in military science is provided for all male students, and infantry drill is given in the field movements and under arms. Arms, accouterments and ammunition have been supplied by the Federal Government. The military discipline is mild but firm, and cultivates habits of punctuality, alertness and the sense of personal responsibility. A rifle club organized by volunteers is an interesting feature of military training.

The Federal measure establishing the Reserve Officers Training Corps provides free uniforms to all cadets taking three hours drill per week, and to those taking the advanced course of five hours per week, \$9.00 per month in addition.

Honor Students

The honor students for the session 1916-17, were as follows:

School of Agriculture.—Roy Hoke, 90 21-25.

School of Engineering.—C. E. McElroy, 85 9-19.

School of Home Economics.—Mattie French, 90 2-5.

School of Science and Literature.—Lucille Dillon, 90.

School of Education.—Iris Fellows, 93.

George W. Stiles of the class of 1900 offers a \$25.00 prize to the student doing work along bacteriological lines for the best thesis on some phase of rural sanitation. The work is to be along original lines and of such merit as to justify recognition in awarding the prize.

The \$5.00 prize offered by the English Department was won by E. Ray Skinner. George Ransom won the Otey prize, given by Financial Secretary M. J. Otey, to the student who overcame the most serious difficulties in his college career.

Prizes in Public Speaking Contests**Old Line Oratorical—**

First Prize—\$25.00, Bishop Clothing Company, Stillwater, won in 1917 by Earl French.

Second Prize—\$10.00, Rexall Drug Company, Stillwater, won in 1917 by David Wilson.

Intercollegiate Peace Oratorical—

First Prize—\$25.00 gold watch, Holt Jewelry and Optical Company, Stillwater, won in 1917 by David Wilson.

Second Prize—\$15.00, Smith's studio, Stillwater, won in 1917 by Paul Hoggard.

Intercollegiate Prohibition Oratorical—

First Prize—\$25.00, Searcy's grocery, Stillwater, won in 1917 by Earl French.

Second Prize—\$10.00, First National Bank, Stillwater, won in 1917 by W. J. Beck.

Intercollegiate Debate—

First Prize—\$15.00, Peck Bros., and other alumni, won in 1917 by E. Ray Skinner.

Second Prize—\$10.00, Mr. M. J. Otey, Stillwater, won in 1917 by Earl French.

Third Prize—\$5.00, Dr. F. B. Olentine, Chicago.

Freshman Declamation—

First Prize—\$10.00, Katz department store, Stillwater, won in 1917 by Grace Aikens.

Second Prize—\$5.00, Tiger Drug and Book Company, Stillwater, won in 1917 by Opal Taylor.

Freshman Extempore Speaking—

First Prize—\$10.00, Katz department store, Stillwater, won in 1917 by B. L. Wertz.

Second Prize—\$5.00, Stillwater Furniture Company, Stillwater, won in 1917 by Frank Martin.

Students who make the intercollegiate debating teams are awarded gold medals by the College, and are eligible for membership in the Pi Kappa Delta honorary fraternity.

Earl French of A. and M. College won first prize in 1917 in the state oratorical contest.

SCHOOLS OF INSTRUCTION

The schools of instruction are planned and grouped to suit the natural needs and desires of the students in attendance at this institution, as indicated by the experience of several years past. Formerly the studies offered by the several departments of the College were grouped in "Divisions". As a result of recent developments and change these are now known as "Schools" and their subdivisions are termed "Courses", thus the School of Engineering has its Electrical Engineering course, Mechanical Engineering course, etc.

Under the present organization the studies of the College are grouped into the following Schools:

1. The School of Agriculture.
2. The School of Engineering.
3. The School of Home Economics.
4. The School of Science and Literature.
5. The School of Education.
6. The School of Commerce and Marketing.
7. The School of Veterinary Medicine.

THE SCHOOL OF AGRICULTURE

HENRY G. KNIGHT, *Dean*

COURSES OF INSTRUCTION

The following courses of study, designed to meet the requirements of students of the various classes, have been arranged by the school:

General Course in Agriculture

This course of study leads to the degree of Bachelor of Science (Agriculture), and offers scientific training in agricultural bacteriology, agricultural chemistry, agricultural economics, agricultural education, agricultural engineering, agricultural journalism, agronomy, animal husbandry, dairying, horticulture, entomology, poultry husbandry and veterinary science. In addition to these specific subjects relating directly to agriculture, it embraces a general training in chemistry, botany, bacteriology, zoology, English and other branches which have an application in agriculture and which are designed to give a broad, general education for the man who wishes to devote his time and talent to agricultural pursuits, investigations or teaching.

The field is so broad, however, that it is impossible for any student in four years to take advantage of all the lines of work offered. As will be seen in the curriculum of studies, the work in the Freshman, Sophomore and Junior years is very much the same for all students, giving a maximum of the necessary fundamental studies. The Senior year, however, gives much liberty for selection and for elective studies in the particular branch of agricultural science in which the student may be interested.

Laboratory Exercises and Practice Work

It has been found that the students in the regular four years course in agriculture divide themselves about equally into two classes on the basis of their future work. Those planning to return to the farm or to engage in demonstration work are desirous of more practice work in all departments, while those desiring to

take advanced studies with the view of becoming instructors and research specialists, require more technical training in the classroom and laboratory.

In order to meet in part at least the demands of these two legitimate classes of students, there will be offered an opportunity for those wishing the more practical training to use at least a part of the required laboratory periods in practical work on the farm. In other words, work on the farm, in the Experiment Station, in the creamery, the orchard, the garden, the stock barns and the poultry plant for at least two half days each week may be substituted for required laboratory work. The labor will be paid for at the rate of 20 cents per hour. The labor will be performed under supervision, and as soon as a student has become proficient in any department he will receive due credit for the practice work in that department and will be passed on to other departments. Credits may be made in this manner during the summer months by working on the College farm and in other departments.

Four credits may be allowed for this practice work during each semester of the four years course. This credit is to be arranged for in consultation between the heads of departments and the dean's office, to be approved by the President.

This practice laboratory work is entirely optional with the student. Work must be done in a satisfactory manner or credit will not be given, and no student will be continued in practice work who is not making a proper use of the time spent in the department.

Teacher Training

The Smith-Hughes Act passed by Congress provides funds for secondary vocational education. The opportunities offered for teachers of vocational subjects are unparalleled. Already a demand for trained teachers is noted which, it seems, cannot be met unless more students prepare themselves to teach these subjects. The course in General Agriculture for Teachers, given on another page, meets the requirements for teachers of Vocational Agriculture under the provisions of the Smith-Hughes Act.

To meet the present emergency, students who have elected other courses in the School of Agriculture, and who present 13 hours of work from the School of Education, of which at least 6 hours must be prescribed courses in agricultural education, will

be given permission to teach vocational agriculture in secondary schools of the State receiving Smith-Hughes money for vocational agriculture.

Farmers Course in Agriculture

The Farmers' Course in Agriculture is designed to meet the growing demand on the part of the busy farmer who is actually engaged in the work on his farm and who cannot avail himself of a college course, yet desires the latest information on the various phases of work on his farm. The course will consist of addresses, demonstrations and exercises covering a period of one week, designed to give busy farmers the most useful instruction and practice in the various phases of field crop culture, stock-feeding and management, horticulture, dairying and kindred subjects in the shortest possible time and at a season when they can be away from home for a brief period.

The course will be held in July, 1918, and is given under direction of the Extension Division, assisted by the teaching staff and Experiment Station staff of the A. and M. College, assisted by other speakers and specialists. Programs may be had upon application to the Director of Extension, A. and M. College, Stillwater, Oklahoma.

Six Weeks' Course in Dairying

Students in this course must be at least sixteen years of age and have a good common school education. No entrance examinations are required.

TERMS OF ADMISSION

Four-Year Courses in Agriculture

The requirements for admission to these courses are stated in terms of units in common with all other regular courses in the College. The term "unit" means the equivalent of five recitations a week for one year in one branch of study in the Secondary School. Fifteen units are required for admission, an allowance of 1 credit being made, however, where an applicant has completed 14 units of work in an accredited high school. The 15th unit may be made up from the Secondary School studies offered in the College.

Applicants will be required to present 3 units in English; 1 in

social science, including history; 1 in physics; 2 in mathematics, which shall be made up of 1 unit in algebra and 1 in plane geometry; 3 academic units, including foreign language, and 5 additional units shall be elective from vocational, science, or other subjects.

GENERAL COURSE IN AGRICULTURE

The following outline of study represents the required and elective work in the School of Agriculture. The courses are numbered, beginning with one hundred in the Freshman year; odd numbers, as 101, represent the first semester's work in the subject and the even numbers, as 102, the second semester's work. Subjects of the Sophomore, Junior and Senior years are numbered accordingly, two hundred for Sophomore, three hundred for Junior and four hundred for Senior work. One hour of laboratory period is equivalent to one third of a classroom period in estimating the number of hours per week to be taken.

The total requirements for graduation are 128 credits, exclusive of any credits given in military science and physical education.

The thesis or substitute work approved by the dean of the school must represent some phase of the student's work in his major study, for which a maximum of 4 credits will be given. Before graduation every student in agriculture must have had at least six months of actual farm experience satisfactory to the dean of the school.

In the outline below, figures without parenthesis indicate hours of classwork, in parenthesis hours of laboratory work.

General Course

FRESHMAN YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours.	Cr.		Hours.	Cr.
Eng. 101, College	3	3	Eng. 102, College	3	3
Chem. 101, Inorganic	3 (4)	4½	Chem. 102, Inorganic	2 (4)	3½
Agron. 101, Field Crops	2 (4)	3½	Hort. 104, Vegetable Gardening	2 (2)	2½
A. H. 101, Market Types....	1 (4)	2½	Bot. 104, General	3 (4)	4½
Pub. Spk. 123, Essentials....	1 (2)	1½	Dairy 102, Elements of Dairying	2 (4)	3½
Military Science	(3)		Shop 108, Farm Carpentry	(3)	1
Physical Education	(3)		Military Science	(3)	
			Physical Education	(3)	

SOPHOMORE YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours.	Cr.		Hours.	Cr.
Eng. 203, News Writing	2	2	Chem. 206, Quantitative Agricultural Chemistry ...	2 (6)	4
Chem. 207, Qualitative Analysis	1 (3)	2	A. H. 202, Breeds of Livestock	2 (3)	3
Chem. 205, Organic	2 (3)	3	Ento. 202, General	3 (2)	3½
Hort. 201, Fruit Growing....	2 (4)	3½	Bact. 310, General	2 (4)	3½
Zool. 207, General	2 (4)	3½	Agron. 204, Soils	2 (3)	3
Farm Engr. 201, Farm Mechanics	1 (3)	2	Military Science	(3)	
Shop, 205, Agricultural Forging	(3)	1			
Military Science	(3)				

Agronomy Course**JUNIOR YEAR**

FIRST SEMESTER			SECOND SEMESTER		
	Hours.	Cr.		Hours.	Cr.
Agron. 303, Forage Crops....	2 (4)	3½	Agron. 302, Soil Fertility....	3 (6)	5
Bot. 303, Genetics	3	3	Hort. 304, Plant Breeding....	3	3
Farm Eng. 303, Farm Motors	2 (4)	3½	Agron. 304, Farm Accounts 1	(2)	1½
P. H. 305, Farm Poultry.....	2 (4)	3½	A. H. 306, Animal Nutrition	3	3
Electives		3	Electives		3½

SENIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours.	Cr.		Hours.	Cr.
Agron. 401, Farm Management	2 (4)	3½	Agron. 404, Crop Improvement	1 (4)	2½
Agron. 409, Advanced Crops or	2 (4)	3½	Agron. 424, Advanced Farm Management	1 (4)	2½
Agron. 405, Advanced Soils	2 (4)	3½	Agri. 402, College and Station Work	1	1
Agron. 407, Seminar	1	1	Agri. 404, Bulletin Review..	1 (2)	1½
Electives		8½	Agron. 408, Seminar	1	1
			Electives		9

Animal Husbandry Course**JUNIOR YEAR**

FIRST SEMESTER			SECOND SEMESTER		
	Hours.	Cr.		Hours.	Cr.
A. H. 301, Livestock Record Work	1 (2)	1½	A. H. 302, Livestock Judging	1 (4)	2½
Vet. Sci. 309, Anatomy.....	2 (2)	2½	A. H. 306, Animal Nutrition	3	3
Bot. 303, Genetics	3	3	Vet. Med. 310, Animal Diseases	2 (2)	2½
P. H. 305, Farm Poultry....	2 (4)	3½	Agron. 302, Soil Fertility....	3 (6)	5
Vet. 301, Physiology	2	2	Electives		3
Electives		3½			

SENIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours.	Cr.		Hours.	Cr.
A. H. 401, Livestock Selection	1 (6)	3	A. H. 404, Animal Production	3	3
A. H. 409, Animal Breeding	3	3	A. H. 408, Dairy Cattle Feeding Management	2 (2)	2½
Agron. 401, Farm Management	2 (4)	3½	Agri. 404, Bulletin Review..	1 (2)	1½
Electives		6½	Agri. 402, College and Station Work	1	1
			A. H. 406, Practicum	(4)	1½
			Electives		6½

Dairying Course**JUNIOR YEAR**

FIRST SEMESTER			SECOND SEMESTER		
	Hours.	Cr.		Hours.	Cr.
Dairy 303, Testing Milk and Its Products	1 (6)	3	Dairy 304, Factory Operation	2 (8)	4½
Farm Engr. 303, Farm Motors	2 (4)	3½	A. H. 306, Animal Nutrition	3	3
Econ. 201, Elements of Economics	3	3	Electives		8½
Agron. 303, Forage Crops....	2 (4)	3½			
P. H. 305, Farm Poultry	2 (4)	3½			

SENIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours.	Cr.		Hours.	Cr.
Dairy 405, Cheesemaking....	1 (6)	3	Dairy 404, Market Milk and		
Dairy 407, Milk Production, 3		3	Dairy Inspection	2 (3)	3
A. H. 409, Animal			Dairy 406, Dairy Seminar...	1	1
Breeding	3	3	Agri. 402, College and		
Bact. 311, Dairy			Station Work	1	1
Bacteriology	2 (4)	3½	Agri. 404, Bulletin Review..	1 (2)	1½
Electives		4	Electives		9

Horticulture Course

JUNIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours.	Cr.		Hours.	Cr.
Hort. 301, Systematic			Hort. 304, Plant Breeding....	3	3
Pomology	2 (4)	3½	Bot. 304, Plant		
Hort. 305, Canning and			Physiology	2 (2)	2½
Handling By-Products.....	1 (2)	1½	Agron. 302, Soil Fertility...	3 (6)	5
Bot. 303, Genetics	3	3	Electives		5½
P. H. 305, Farm Poultry....	2 (4)	3½			
Electives		4½			

SENIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours.	Cr.		Hours.	Cr.
Hort. 401, Commercial			Hort. 402, Landscape		
Pomology	2 (2)	2½	Gardening	2 (2)	2½
Hort. 405, Forestry	2	2	Hort. 404, History and		
Bot. 305, Pathology	2 (4)	3½	Literature of Horti-		
Econ. 201, Principles of			culture		
Economics	3	3	or		
Electives		5	Hort. 406, Forestry	3 (2)	3½
			Agri. 404, Bulletin Review..	1 (2)	1½
			Agri. 402, College and		
			Station Work	1	1
			Econ. 414, Rural		
			Economics	2	2
			Electives		5½

Poultry Course

JUNIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours.	Cr.		Hours.	Cr.
Agron. 303, Forage Crops...	2 (4)	3½	A. H. 306, Animal		
Bot. 303, Genetics	3	3	Nutrition	3	3
P. H. 305, Farm Poultry ...	2 (4)	3½	Agron. 302, Soil Fertility...	3 (6)	5
P. H. 309, Judging	(2)	½	P. H. 308, Incubation—		
Electives		5½	Brooding	(6)	2
			Electives		5½

SENIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours.	Cr.		Hours	Cr.
Agron. 401, Farm			Agri. 402, College and		
Management	2 (4)	3½	Station Work	1	1
Dairy 407, Milk Production. 3		3	Agri. 404, Bulletin Review..	1 (2)	1½
P. H. 401, Seminar	1	1	P. H. 408, Extension		
P. H. 403, Research	1 (2)	1½	Work	2	2
Electives		5½	P. H. 402, Seminar	1	1
			P. H. 406, Management ...	2 (2)	2½
			Electives		6

Course in General Agriculture for Teachers*JUNIOR YEAR**

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Hort. 305, Canning and Handling By-Products	1	(2) 1½	A. H. 302, Livestock Judging	1	(4) 2½
Agron. 303, Forage Crops.....	2	(4) 3½	A. H. 306, Animal Nutrition	3	3
Vet. 309, Anatomy	2	(2) 2½	Vet. 310, Animal Diseases	2	(2) 2½
P. H. 305, Farm Poultry.....	2	(4) 3½	Agron. 302, Soil Fertility....	3	(6) 5
Bot. 303, Genetics	3	3	Edu. 102, Principles of Education	2	2

SENIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Agron. 401, Farm Management	2	(4) 3½	Econ. 414 Rural Economics	2	2
Bot. 305, Plant Pathology	2	(4) 3½	Soc. Sci. 304, Social Problems	2	2
Agri. Edu. 403	3	3	Soc. Sci. 405, Rural Sociology	2	2
Edu. 421, Practice Teaching	(4)	1½	A. H. 406, Practicum	(4)	1½
Electives		5	Edu. 302, Applied Psychology	3	3
			Edu. 422, Practice Teaching	(4)	1½
			Electives		4½

*Students completing this course are qualified to teach in the high schools of the State receiving Smith-Hughes support.

DEPARTMENT OF AGRONOMY

M. A. BEESON, *Professor*
 ADRIAN DAANE, *Assistant Professor*
 D. R. JOHNSON, *Assistant Professor*
 H. H. FINNELL, *Station Farm Foreman*
 H. L. MURPHY, *Student Assistant*
 E. B. HILDEBRAND, *Student Assistant*
 OTTO HATCHER, *Student Assistant*

The course in agronomy has been designed to familiarize the student with the principles underlying productive soils, plant growth and farm management. It offers practical training in these modern fields of science, preparing young men to successfully solve the problems of farm life and fitting them for educational and research work.

The subject matter of these courses comprises the most recent information and experimental data. While the conditions in different sections of Oklahoma are given special consideration, yet the instruction is not intended to be limited geographically.

The courses of instruction in this department are coordinated with the courses in animal husbandry, dairy husbandry, agricultural engineering, poultry husbandry, horticulture and entomology. By this arrangement, and the electives allowed, the student will be able to get a comprehensive knowledge of the three large

branches of agricultural science—the soil, the plant and the animal. And, too, the student has an opportunity to get either a general education to fit him more particularly for general farming and extension work, or he may specialize in any particular division of the Agronomy Department, as soils, crops and farm management.

The work in the department is two-fold: First, to fit young men to successfully solve problems of soils, crops and farm management, which are an integral part of every farmer's experience; second, to fit students to creditably fill positions in agricultural colleges, experiment stations, as investigators in governmental and state experimental work, high schools, farm managers, and extension workers for colleges and railroads.

There is a constantly increasing demand for men trained in soils, crops and principles of farm management, and every year the department is asked to recommend men for such desirable positions in colleges and experiment stations; instructors of agriculture in high schools; investigators in governmental and state experimental work, farm managers and extension workers.

The Station farm used by the Department of Agronomy consists of 160 acres of medium rolling land, well situated for experimental and demonstration work. It is well equipped with all kinds of farm machinery necessary in crop production.

The general field and experimental plats of the Experiment Station used for breeding and testing farm crops and for conducting experiments in methods of soil management, afford the student excellent opportunities for study and investigation.

The large, well equipped laboratory for soil physics and soil fertility work is maintained for the regular use of students.

A research laboratory is well supplied with necessary apparatus for the use of the instructors and advanced students in doing research work.

The crops laboratory is well equipped with material and specimens for a detailed study of the different cereal, forage and fiber crops.

The courses in farm management have been designed to correlate the information obtained in other courses so that the student may understand the principles involved in organizing and conducting a farm as a profitable business. Records of 1,000 Okla-

homa farms are available for use in the farm management course.

The following is a detailed description of the courses offered in lecture rooms and laboratories:

SUBJECTS

101 Field Crops. Class 2 hours, laboratory 4 hours. Credit 3½.

A study of the characteristics, adaptation, preparation of the seedbed, culture and uses of the various cereal crops and varieties of cotton adapted to Oklahoma conditions. The laboratory work is devoted largely to grain-judging and a study of the various cereal grains.

Text: "Field Crops for the Cotton Belt", Morgan.

Required: All agricultural students.

204 Soils. Class 2 hours, laboratory 3 hours. Credit 3.

A general introductory course dealing with the origin, formation, classification and physical properties of soils. Particular emphasis is placed upon the effect of soil management on moisture, drainage, aeration, heat, erosion and alkali.

Text: "Soils", Lyon, Fippin and Buckman.

Prerequisite: Elementary Physics.

Required of all agricultural students.

302 Soil Fertility. Class 3 hours, laboratory 6 hours. Credit 5.

The relation of the plant to the soil. Influence of the plant on the natural fertility of the soil. Profitable methods of conserving fertility. Effect of different systems of farming upon the fertility and productiveness of soils. Relation of micro-organisms to fertility. Special emphasis given to fertilizer requirements of Oklahoma soils.

Text: "Soil Fertility and Permanent Agriculture", Hopkins.

Prerequisite: Chem. 206; Agron. 204.

Required of all agricultural students.

303 Forage Crops. Class 2 hours, laboratory 4 hours. Credit 3½.

A study of the history, development, growth, distribution, culture and uses of the forage and fiber crops. Annual and perennial grasses and forage crops, including legumes, cereals and sorghums, are studied with special reference to their culture, adaptation, production and uses. In the laboratory a study is made of the different seeds with special reference to their identification, quality and purity.

Text: "Forage Crops", Piper.

Prerequisite: Agron. 101.

Required of all agricultural students.

304 Farm Accounts. Class 1 hours, laboratory 2 hours. Credit 1½.

Farm inventories, stock and crop account; complete farm accounts. Special emphasis is given to the interpretation of the accounts and their application to the organization and management of the farm.

Required of all agronomy students.

Elective for all students.

305 Cotton Production, Grading and Classing. Class 1 hour, laboratory 4 hours. Credit 2½.

Varieties, methods of selection, planting, culture, harvesting and marketing of the cotton crop and cottonseed products will be considered in detail. The laboratory work consists of testing fibers and grading and classing, together with field work.

401 Farm Management. Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{3}$.

The purpose of this course is to assemble and correlate the principles involved in the successful management of a farm. Study is made of points to be considered in the selection of the farm, types of farming, planning and arrangement of the farmstead, the fields and crop rotations; of the cost of producing farm products. The relation of the size of the farm to profits;; the relation of livestock to crop production and maintenance of permanent agriculture receives consideration.

Text: "Farm Management", Warren.

Prerequisite: Agron. 101, 204, 302.

Required of all agricultural students.

404 Crop Improvement. Class 1 hour, laboratory 4 hours. Credit $2\frac{1}{3}$.

This is an advance course in cereal and forage crops dealing with factors affecting management, improvement and breeding.* The laboratory is partly devoted to the collection, reading and classification of material concerning cereal and forage crop improvement. As soon as conditions in the spring permit, the laboratory work consists chiefly of actual field work on the principal crops that are being improved on the Station farm.

Prerequisite: Agron. 101, 302, 303.

Required: Either Agron. 404 or Agron. 424 of agronomy students.

405 Advanced Soils. Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{3}$.

Physical or chemical study of special soils in which the student is especially interested. Centrifugal analysis, time and depth of cultivation, moisture and temperature, surface washing and prevention, determination of limiting elements of plant food on the home farm, effect of various fertilizers, as determined by pot and field experiments. Study of fertility experiments at other stations.

Prerequisite: Agron. 204 and 302.

Required: Either Agron. 405 or Agron. 409 of agronomy students.

407 Seminar. Class 1 hour. Credit 1.

Reports, discussions and papers will be called for on literature and scientific research along agronomic lines.

Prerequisite: Agron. 101, 202, 302.

Required of all agronomy students.

408 Seminar. Class 1 hour. Credit 1.

Continuation of Agron. 407.

Prerequisite: Agron. 101, 202, 302.

Required of all agronomy students.

409 Advanced Crops. Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{3}$.

This course takes up more advanced work in the production of the important crops throughout the United States. Emphasis will also be placed on more detailed study of the various plants that go to make up the cereal and forage crops of the United States.

Prerequisite: Agron. 101, 302, 303.

Required: Either Agron. 409 or Agron. 405 of agronomy students.

423 **Commercial Grades and Distribution of Farm Crops.** Class 1 hour, laboratory 4 hours. Credit $2\frac{1}{3}$.

Study is made of the methods of inspecting, grading, storing and distributing grain. In the laboratory a study is made of the commercial grades of corn, wheat, oats and hay.

Prerequisite: Agron. 101.

Elective for agricultural and commerce and marketing students.

424 **Advanced Farm Management.** Class 1 hour, laboratory 4 hours. Credit $2\frac{1}{3}$.

Further study of organization and field management, and a study of the actual farms over the State, noting the arrangement of fields and obtaining data on the farm, including labor, income and cost of production.

Prerequisite: Agron. 401.

Required: Either Agron 424 or Agron. 404 of agronomy students.

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DEPARTMENT OF ANIMAL HUSBANDRY

J. S. MALONE, *Professor*
 W. L. BLIZZARD, *Assistant Professor*
 S. F. RUSSELL, *Instructor*
 FRED BAYLESS, *Herdsmen*
 E. R. JONES, *Herdsmen*
 CHARLES TILLIER, *Herdsmen*
 C. H. CARPENTER, *Herdsmen*
 R. F. SPILLMAN, *Herdsmen*
 CLYDE HAMLIN, *Farm Foreman*

The Department of Animal Husbandry gives instruction in all lines of practical and theoretical work which deal with judging, selecting, breeding, feeding, development, care and management of the various market and breed types of farm animals. The livestock industry in Oklahoma is the most important industry in the State, and for this reason the department is attempting to supply adequate instruction to meet the demands for work of this character.

Equipment

The equipment in the form of flocks and herds, barns and out-buildings, judging pavilion, land and lots is rather complete. These make up the laboratories for this department. That the herds and flocks contain animals of unusual merit is shown by recent winnings at the best livestock shows in the country. A steady improvement in the livestock is being sought.

The books in the libraries of the College, Experiment Station and department assist the students greatly in securing authentic information about livestock affairs. The department receives regularly copies of all the prominent livestock papers and periodicals. Special effort has been made to secure a complete list

of herdbooks and animal husbandry reference literature. The material at hand enables students to become specialists in many lines of the animal industry.

Courses

Judging and selection is one of the main factors of the livestock work. The instruction is given with the idea that a great deal of good practice makes a proficient judge. Much time is given to work with the animals at the barns and in the judging pavilion. The score card method is used at first. In this way every point that affects the value of the animal is discussed in detail. Different breeds and types have different score cards, and by the use of all these cards students become skillful in judging the various breeds and types. Comparative judging is introduced as soon as the student has become proficient in the use of the score card. The comparative system consists in placing a class of animals in order of merit. Three or four or more animals are used as a class. Fifty percent is given to perfect placing and 50% for correct reasons for placing. The Senior and post-graduate students are trained in judging so that they may, upon completing the course, assist in judging at the various county and State fairs.

Breeding, feeding and management are important courses of the instruction. Several breeding experiments are in progress at the Experiment Station. Students work out the details of the experiments and thereby become acquainted with the fundamental principles governing this science. Senior students are required to spend four hours each week throughout the year in feeding the hundreds of head of livestock at the College. The feeding work is carefully supervised by the best trained instructors and herds-men.

Livestock management is one of the principal courses on the schedule. Students are taught that good management is more necessary than theories and fancies.

The main aim of the work given the student is to train him to fill some of the fields in which there is a great demand. A combination of college training and practical experience works well in making the best men. Colleges and experiment stations, Government agencies, farmers, merchants and all commercial agencies that buy and sell the farmer's produce, need men trained as the College is doing.

Beef Cattle

The beef cattle section of the Animal Husbandry Department is represented by three breeds, the Hereford, Shorthorn and Angus. Good representatives of each breed are maintained, and the course of study is so arranged as to give the student practical instruction in selection, feeding, breeding, marketing, care and management. In addition to the breeding herd, the College maintains a steer herd. It is maintained because it is much easier to keep steers in high condition throughout the year, as there is a tendency to make non-breeders of breeding cattle by keeping them in the high condition required for the best instruction work. The recent winnings of the cattle show that the present equipment is exceedingly good.

Dairy Cattle

The livestock equipment in the dairy section consists of registered Jerseys and Holstein-Friesians of high quality. Some of them produce as much milk and butterfat as any in the State. Daily records of about forty pounds of milk and two pounds of butterfat for about six months are common among the animals of the Rose Fern Lad Jersey family. Yearly records are kept in every case. It is planned to have one other breed well represented in the College herd before another year has passed. There has been a larger increase in value per head of dairy cattle in Oklahoma during the past year than any other class of livestock. More attention will be given to selecting and producing dairy cattle. Numerous lots and pasture land of several hundred acres is used in the outdoor management of the herd.

Horses

The horse section of the Animal Husbandry Department is represented by two breeds. Among these are good representatives of the Percheron and Standard Bred. In the collection of Percheron mares some excellent specimens are found. The Standard Breds are also represented by good individuals. This collection of horses was established some time ago, and with the individuals that have been added to it gives the student an excellent opportunity to receive some real practical work with horses.

Sheep

The equipment for sheep consists of a barn and two silos, valued at \$2,500.00, besides several moderate sized pasture fields. The breeding flocks total about one hundred select individuals. All sheep are owned by the Experiment Station and are used in the cross-breeding experiment that was started in 1909. Pure-bred flocks of Shropshires, Dorsets, American Merinos and Rambouillets are maintained and afford excellent material for instruction in the types and breeds of sheep in connection with the work in practical sheep-judging. Thorough courses are offered in the study of market types and breed types of sheep, together with special sheep selection, production and management.

Swine

The collection of swine outnumbers that of any other section of the Animal Husbandry Division. Several breeds are represented. There are more Duroc Jerseys than any other breed. A number of Poland Chinas, Berkshires and Hampshires are kept. About fifty grade hogs are used, mainly for experimental purposes. In all, the number of swine on hand ranges from 175 to 200.

SUBJECTS

101 Market Types of Livestock. Class 1 hour, practice in judging 4 hours. Credit $2\frac{1}{2}$.

This course consists of a study of the market types, classes and grades of horses, cattle, sheep and swine.

Text: Types and Market Classes of Livestock, Vaughn.

202 Breeds of Livestock. Class 2 hours, practice 3 hours. Credit 3.

Characteristics of each breed of horses, cattle, sheep, swine and jacks are considered at length. Each breed is discussed with reference to its origin, history, development and adaptation to American conditions. Much emphasis is put on the practical work in judging representatives of the various breeds according to the standards set by the show ring.

Text: Types and Breeds of Farm Animals, Plumb.

301 Livestock Record Work. Class 1 hour, laboratory 2 hours. Credit $1\frac{3}{4}$.

Prerequisite: A. H. 101, 202.

A study of the systems of livestock registration, the use of herd-books, the tracing of pedigrees, and the leading blood lines of horses, cattle, sheep and swine.

Text: Herd Record Books.

- 302 Livestock Judging.** Class 1 hour, practice in judging 4 hours. Credit $2\frac{2}{3}$.

Prerequisite: A. H. 101, 202.

A practical course aimed to train the student to become proficient in livestock judging. The first part of the work consists of the use of the score card as applied to the different types and breeds. The major portion of the work is done by the method of comparative judging, using rings of from three to five animals.

Text: Judging Farm Animals, Plumb.

- 306 Animal Nutrition.** Class 3 hours. Credit 3.

Principles of animal nutrition; composition and digestibility of various feeds; balanced rations; economical feeding of animals for various purposes.

Text: Feeds and Feeding, Henry and Morrison.

- 401 Livestock Selection.** Class 1 hour, practice in judging 6 hours. Credit 3.

Prerequisite: A. H. 101, 202, 302.

Required of students who are candidates for judging teams.

This course deals with the judging of market classes as well as the different breeds of purebred stock. During the work of the term occasional trips are made to the best livestock farms of the State where the students have an opportunity to judge and to observe the management of herds and flocks. Students are urged to attend county and state fairs to observe the judging of livestock.

Text: Assigned references.

- 404 Animal Production.** Class 3 hours. Credit 3.

Prerequisite: A. H. 101, 202, 306.

Studies of the most practical and scientific methods of producing, feeding and marketing livestock.

Text: Productive Horse Husbandry, Gay; Productive Swine Husbandry, Day; Sheep Farming, Craig.

- 406 Practicums—Practice in Feeding and Handling Livestock.** Laboratory 4 hours. Credit $1\frac{1}{3}$.

Prerequisite: A. H. 305, 306.

Practical feeding and management of horses, beef cattle, dairy cattle, sheep and swine is given in the barns, and each student is required to do the scheduled amount of this kind of work. Drill is given in grooming, feeding, care, management, fitting and training for show and exhibition purposes. The aim of the course is to aid the student to become a thoroughly practical and expert stockman.

- 408 Dairy Cattle Feeding, Management and Judging.** Class 2 hours, practice work in judging 2 hours. Credit $2\frac{2}{3}$.

A special course for students in dairying.

- 409 Animal Breeding.** Class 3 hours. Credit 3.

Prerequisite: Bot. 303; A. H. 101, 301.

Required of Seniors in animal husbandry and dairying.

A study of the principles of animal breeding and their practical application. Special emphasis is laid upon the study of heredity and its control with reference to livestock improvement.

Text: Principles of Breeding, Davenport.

DEPARTMENT OF DAIRYING

A. C. BAER, *Professor*
C. A. BURNS, *Assistant Professor*
W. P. CHEWNING, *Assistant in Cow Testing*
C. P. UNWIN, *Foreman of Creamery*

The dairy industry has continued to make rapid progress in Oklahoma. During the past year many sections of the State have developed in dairying. Many dairy cows from the Northern States have been brought to Oklahoma farms and are being successfully handled.

Several new creameries have been established or reorganized, and one large cheese factory is in successful operation. The ice cream and market milk industry continue to be of special importance in the State.

More interest in dairying is manifested each year, and the opportunity for students and graduates to enter the field of commercial dairying and dairy farming are unlimited for many years to come. Many graduates find the dairy farm an attractive field, others will find opportunities in commercial factories and milk plants, as well as in college and experiment station work. Opportunities for students of dairying in the Government service are especially attractive this year.

The courses offered in this department give students a thorough knowledge of general dairying as well as specialized, technical and practical training in buttermaking, cheesemaking, ice cream making, and market milk, as well as in milk production and dairy management.

The facilities for instruction include a modern, sanitary commercial creamery and ice cream factory equipped with modern dairy machinery and appliances, as well as lecture rooms and laboratories for the teaching of the Babcock test and other dairy tests.

The farm dairy room is equipped with twelve modern cream separators and clarifiers, as well as complete buttermaking apparatus.

The market milk and cheese room are well equipped with all modern machinery to facilitate instruction in these two important branches of dairying.

The activities of the department include the teaching of students in regular and short courses, the commercial operation of the creamery for experimental and research studies which are

carried on throughout the year by the departmental staff. Researches are in progress in ice cream making, buttermaking, cheese making, and in the marketing of dairy products.

The department has charge of official advanced registry and register of merit testing for purebred breeders of dairy cows of the State.

Students majoring in dairying have an opportunity to secure experience and acquaintance with all the activities of the department.

SUBJECTS

- 102 Elements of Dairying.** Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{2}$.

(One hour lecture and one hour recitation.)

A general survey of the field of dairying, including a study of the secretion of milk, the Babcock test, farm buttermaking, farm separators, production of sanitary milk, cow test associations, and advanced registry testing.

Text: Milk and Its Products, Wing.

- 303 Testing Milk and Its Products.** Class 1 hour, laboratory 6 hours. Credit 3.

A thorough study in the use of the Babcock test. Includes testing of milk and cream for butterfat, calibrating of glassware and testing skimmilk, buttermilk, cheese, condensed milk and ice cream for butterfat. The lactometer and its application to the detection of adulteration, different methods of testing for acidity, fermentation tests, detection of oleomargarine, renovated butter. Tests for preservatives in different dairy products are also included.

Text: Testing Milk and Its Products, Farrington and Woll.

- 304 Factory Operation.** Class 2 hours, laboratory 8 hours. Credit $4\frac{1}{2}$.

A study of modern methods of buttermaking, ice cream making, cottage cheese, including pasteurization, ripening, starters, churning and moisture control; creamery and factory organization and management; construction and accounting.

Text: Principles and Practices of Buttermaking, McKay and Larsen; Ice Cream and Ices, Fransden and Markham.

- 404 Market Milk and Dairy Inspection.** Class 2 hours, laboratory 3 hours. Credit 3.

A study of market milk and its control. Pasteurization and commercial handling of milk. Laboratory and field inspection of milk. Milk ordinances and board of health milk regulations.

Text: The Milk Question, Roseneau; Laboratory Guide for Market Milk, Ross.

- 405 Cheesemaking.** Class 1 hour, laboratory 6 hours. Credit 3.

Modern methods of factory cheesemaking, including practical instruction in the manufacture of various kinds of cheese; construction and management of cheese factories.

Text: Science and Practice of Cheesemaking, Van Slyke and Publow.

406 Dairy Seminar. Class 1 hour. Credit 1.

Each student will prepare a thesis on a dairy subject, arranged in outline form at the beginning of the semester, after consulting with the instructor. Students will be given the privilege of writing and reporting on dairy subjects of special interest to them.

Summary of certain bulletins will be required.

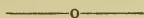
407 Milk Production. Class 3 hours. Credit 3.

A study of factors governing the choice of a dairy breed, best methods of handling dairy cattle, improved standards of production, sanitary and certified milk production, planning and equipping dairy barns and milk houses, equipping the dairy farm, and marketing dairy products.

Text: Dairy Cattle and Milk Production, Eckles.

409 Domestic Dairying. Class 1 hour, laboratory 3 hours. Credit 2.

Elective for Junior and Senior girls. The care of milk and cream in the home; sanitary milk production; milk dietetics and hygiene; the use of dairy products as food; farm buttermaking, and ice cream and ices.

**DEPARTMENT OF HORTICULTURE**

F. M. ROLFS, *Professor*
FRANK B. CROSS, *Instructor*
MISS ANNA COHEN, *Instructor*
R. PERRY ROBERTS, *Foreman*

The courses offered in this department are designed to give the student a thorough knowledge of the most important lines of horticultural work. Instruction consists of lectures, recitations and practical exercises in the laboratory and field.

The facilities for instruction include lecture rooms, reading room, laboratory, implement house, and a practical work room; orchards of a number of the leading varieties of fruits, plantings of vegetables, a small nursery, a cellar, greenhouse, hotbeds, and cold frames. The department is also well equipped with tools, implements and apparatus for giving practical work.

The office, laboratory and classroom are located on the third floor of Morrill Hall. The office and horticultural reading room are combined. The room contains a number of the leading magazines, journals and reference works pertaining to horticulture, as well as a set of Station and United States Government publications. It is intended for the use of students specializing in horticulture, to give them a broader view of the subject and to keep them in touch with current horticultural information. The laboratory is well equipped with modern apparatus for horticulture research work.

The implement shed, work room, cellar, cold frames and propagating beds are located on the horticulture grounds. The work room is supplied with packing tables, workbenches, and other equipment for instructional work. The department is well equipped for giving practical instruction in the various methods of plant propagation; the study of buds and twigs of fruits and ornamental plants; a study of vegetables, fruits, nuts; the design of greenhouse structures and landscape plans; seed testing, and the storing, grading and packing of horticultural products. The cold frames and hotbeds are of various types for home use and commercial purposes, and are used in the vegetable forcing work.

The orchard, vineyard and garden of the Experiment Station offer practice in the pruning and training of various fruits, and also give an opportunity for comparison of the various cultural methods. The grounds, cellar and greenhouse afford ample material for laboratory and classroom work.

SUBJECTS

104 Vegetable Gardening. Class 2 hours, laboratory 2 hours. Credit $2\frac{3}{4}$.

This course includes the general principles of vegetable culture, dealing principally with the study of the home and city garden. Some attention will also be given to vegetable forcing and market gardening. Garden soils, fertilizers as well as various culture features will receive careful attention.

Text: Vegetable Growing, Boyle.

Reference: Vegetable Gardening, Watts.

201 Fruit Growing. Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{2}$.

A course designed to give the student a practical knowledge of fruit-growing and at the same time serve as a foundation work for the course in Systematic Pomology. It embraces a study of planting, pruning, spraying, cultivation, cover crops, frost prevention and fertilizers for orchards and small fruits. The practical work includes making of orchard plans, laying out the orchard, planting, pruning and spraying, and the identification and judging of fruits most commonly grown in Oklahoma.

Text: Productive Orcharding, Sears.

Reference: Principles of Fruit Growing, Bailey.

301 Systematic Pomology. Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{2}$.

Prerequisite: Hort. 201.

A study of the origin and history of our cultivated fruits, and of the varieties best adapted to the home and commercial orchards. Trees representing the different species of our leading fruits are carefully observed, and also the influence of environment upon the behavior of the trees and on the development of their products. Practice is given in describing and identifying varieties of fruits and nuts, placing exhibits, and fruit-judging.

Text: Systematic Pomology, Waugh.

304 Plant Breeding. Class 3 hours. Credit 3.

Prerequisite: Bot. 303.

A study of the application of principles in breeding to improve our fruits and vegetables; the selection and fixing of varieties; the improvement of plants by selection. Special attention is given to breeding for quality and disease resistance. Practical work is given in the orchard, garden and greenhouse in cross-pollination, hybridization and selection.

Text: Plant Breeding, Bailey.

Reference: Plant Breeding, Davenport.

305 Canning and Handling of By-Products. Class 1 hour, laboratory 2 hours. Credit 1½.

A general study of horticultural by-products and fruits and vegetables especially adapted to canning. The different methods of canning, evaporating, drying, and the manufacture of vinegar and fruit juices are studied. Buildings, machinery and apparatus necessary for successful work receive considerable attention. Practical work is given in all the fundamental principles connected with the operation of a cannery.

Theory work is given by lectures.

306 Nursery Practice. Class 2 hours, laboratory 2 hours. Credit 2½.
Elective.

A study of methods by which plants are propagated by means of division, cuttings, layering, budding and grafting; production and care of seeds, seed testing, bulb reproduction; exercises in the laboratory in propagating garden seeds, flowers, shrubs, forest and fruit trees; nursery practice.

Text: Plant Propagation, Kains.

Reference: The Nursery Book, Bailey.

401 Commercial Pomology. Class 2 hours, laboratory 2 hours. Credit 2½.

Prerequisite: Hort. 301.

A course treating of the care of fruit trees, the management of orchards and the handling of fruit. Problems of pruning, spraying, cultivating and frost prevention are studied; also the most approved methods of harvesting, grading, packing, transportation, marketing, storing, and construction of cold storage plants. A careful study of the control measures for insect pests and fungus and bacterial diseases are also given considerable attention.

Text: Fruit Harvesting, Marketing and Storing, Waugh; American Fruit Culturist, Fuller.

402 Landscape Gardening. Class 2 hours, laboratory 2 hours. Credit 2½.

A study of the principles involved in the planting and decorating of public and private grounds and the selection of ornamentals adapted for planting in Oklahoma. Practice consists in designing plans, laying out drives and walks, and planting flower beds, shrubs and trees.

Text: Landscape Gardening, Maynard.

Reference: The Landscape Beautiful, Waugh.

404 History and Literature of Horticulture. Class 2 hours. Credit 2.

Open only to students taking the horticultural course. A study of current horticultural literature, including a review of horticultural periodicals, bulletins and United States Government publications.

405 Forestry. Class 2 hours. Credit 2.

Prerequisite: Bot. 101, 102.

A lecture and field course dealing with the general principles of forestry, relation of forestry to agriculture, windbreaks, shelter belts, lumbering, and conservation.

Text: Green's Principles of American Forestry.

Reference: Practical Forestry, Gifford.

406 Forestry. Class 3 hours, laboratory 2 hours. Credit 3½.

Prerequisite: Hort. 306, 405; Bot. 305.

A study of the fundamental principles of forestry, together with a detailed study of the forests of Oklahoma. This course is designed to meet the needs of students who wish to specialize in forestry.

Theory work given by lectures.

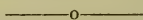
408 General Horticulture. Class 3 hours, laboratory 2 hours. Credit 3½.

Elective.

This course is offered for teachers, and is designed to meet the needs of school garden work. It includes a study of the principles and practices of some of the most important lines of horticulture work. Considerable time is given to the underlying principles of successful gardening and the adaptation of small areas to the production of vegetables and flowers. The subjects of soil preparation; seed selection; fertilizers; hotbeds; planning, planting and care of the garden are given consideration. The fundamental principles of landscape gardening and exterior home decoration are briefly considered. The selection of trees, shrubs and flowers, place to plant, and artistic arrangement are discussed. Some attention is also given to the different methods of propagating, planting, cultivating and harvesting of the different varieties of fruit most commonly grown in Oklahoma.

Theory work given by lectures.

Reference: Vegetable Growing, Boyle; Productive Orcharding, Sears; Landscape Gardening, Maynard.

**DEPARTMENT OF POULTRY HUSBANDRY**HARRY EMBLETON, *Professor*

Assistant Professor

VERN ABBOTT, *Farm Assistant*

The growing interest in the poultry industry in this State is creating a considerable demand for knowledge along poultry lines, both from the practical standpoint and from the standpoint of the poultry educator. The courses in this department are designed to meet both of these conditions.

The Jackson Poultry Law requires that a majority of the schools in Oklahoma hold a poultry and egg show during the year. This means that the teachers in the State, in order to be qualified to teach their work, should have some poultry knowledge. Our course of instruction takes this condition under consideration and makes it possible for teachers to get this necessary poultry knowledge.

There is a growing demand on the part of the boys and girls for purebred poultry and for information as to what is purebred poultry. The course is designed to give the teacher this necessary information.

The awakening of poultry interest is countrywide, and is creating a great demand for scientifically trained poultrymen for instructional, investigational and extension work. A student having completed the course in poultry husbandry will be eligible for work of this kind both with the State and Government.

The Poultry Department is equipped with a large administration building which includes classrooms, incubator cellars, egg rooms, etc. This building is located at the plant. The plant consists of thirteen acres of land arranged with breeding and laying houses so as to get the best results. The houses consist of one long ten-pen laying house and twelve other smaller houses to use for breeding and experimental work. The brooding system consists of one larger brooder house of a thousand-chick capacity, with several smaller houses for smaller flocks. Most of these houses are equipped with colony brooder stoves. The incubation equipment consists of two large incubation cellars containing one 1,200-egg incubator and several smaller ones of many different makes.

The stock consists of fifteen different breeds and varieties, which are used for instructional, investigational and breeding purposes. All of the stock is trap-nested and records of the same are available for use in the work. The capacity of the plant is 1,000 birds. At the present time the size of the flock is 800 birds

SUBJECTS

305 Farm Poultry. Class 2 hours, laboratory 4 hours. Credit 3½.

This course considers the identification and characteristics of the principal breeds and varieties of poultry; the feeding of the farm flock, with a week's feeding practice morning and night at the farm; the comparison of the different types of incubators and brooders; poultry house construction; care of growing stock; breeding for egg-production; poultry diseases; dry picking of poultry; marketing poultry and eggs; caponizing; study of the egg; anatomy; judging poultry and eggs.

This course is outlined for teachers and persons raising poultry on the farm. It is arranged to give the teachers a good foundation in poultry teaching for their future school work in the State, and to aid the producer to get profitable egg production.

No prerequisite.

308 Incubation and Brooding. Laboratory 6 hours. Credit 2.

Each student will be required to select eggs, operate a machine through an entire hatching, keep all the records pertaining to the hatch, feed and care for the little chicks after they hatch out for a two weeks' period. This work comes early in the morning before 8 o'clock, and in the afternoon between 4:30 and 5:30 o'clock. Every student will be required to be at the farm morning and night at these hours, Sunday included, for five consecutive weeks.

No prerequisite.

309 Poultry-Judging. Laboratory 2 hours. Credit $\frac{2}{3}$.

The work in this course will consist of practical work in judging fowls by the standards set forth in the American Standard of Perfection. This is judging them purely from the fancy standpoint. In addition to judging, the question of mating pens and running of poultry shows will be taken up in connection with this work.

No prerequisite.

401-402 Poultry Seminar. Class 1 hour. Credit 1.

This course will consist of the study of the most advanced poultry problems and experimental work, and will keep in touch with the newest ideas and information obtainable for the poultry work.

Prerequisite: P. H. 305, 308, 309.

403 Poultry Research. Class 1 hour, laboratory 2 hours. Credit $1\frac{1}{3}$.

Each student enrolled in this course will be given a definite, specific piece of experimental work to be worked out on their own responsibility. This will give them a chance to use their initiative, imagination and poultry knowledge obtained from the previous courses. It will also give them an insight into methods of conducting experimental work.

Prerequisite: P. H. 305, 308, 309.

406 Poultry Management. Class 2 hours, laboratory 2 hours. Credit $2\frac{2}{3}$.

This course embraces the business end of the poultry flock. Figuring of incubation capacities, brooding capacities, winter laying house capacities, day-old chick and hatching egg question, possible profits, from a definite size poultry flock, the choosing of poultry farms as to their topography, location, climatic conditions, etc., to be considered. The scoring of poultry farms from the standpoint of poultry farm efficiency will be considered.

The laboratory work in connection with this course will consist of practical problems at the farm which come up from time to time in connection with the running of the farm, and also the pedigree recording, and methods of carrying on pedigree work, will all be considered. Labor-saving devices in order to cut down overhead expenses will be discussed. Arrangement of the poultry farm in order to cut down labor will also be taken up. Caponizing and milk fattening of poultry will be practiced. Poultry diseases will be discussed and cases available diagnosed and studied. Green cropping systems, etc., of poultry farms will be considered.

Prerequisite: P. H. 305, 308, 309, 401, 403.

408 Poultry Extension Work. Class 2 hours. Credit 2.

In this course will be considered the psychology of poultry extension work. Both work with adults and boys and girls will be considered. Various types of instruction in order to reach different

classes of people will be studied. Chart-making will be taken up and gone into thoroughly. Window displays, fair exhibits, etc., will be discussed. This course will prepare for poultry extension work along many of its branches.

Prerequisite: P. H. 305, 309, 308, 401 accompanied by P. H. 402, 406.

DEPARTMENT OF FARM MECHANICS AND FARM ENGINEERING PRACTICE

..... Professor

The courses in farm engineering are aimed to give the student the practical knowledge of farm machines, motors, tractors, farm structures, irrigation, drainage and rural roads with which knowledge the farmer must be equipped to farm successfully today. Improved tillage, seeding, harvesting and feed-preparing machinery has increased the capacity and decreased the working hours of farm labor.

The modern farm motor and tractor give ready and ample sources of power to meet the increasing demands of agriculture. The improvement in farm buildings of all kinds has been of great benefit to farm economy. Improved rural roads have brought the farm and market closer together. Irrigation has great possibilities in some sections, while drainage is of equal value in others.

The demand for teachers, farm managers, county agents, experts for farm implement firms and for tractor companies, men for United States Government and railroad work, especially trained in these subjects is great. To the man who intends to return to the farm and work for himself, this training is of particular value.

The department is supplied with the various kinds of farm machines, gas and oil engines, tractors, models of silos, barns, etc., levels and farm surveying instruments, and drainage tools to give practical work in these courses.

SUBJECTS

201 Farm Mechanics. Class 1 hour, laboratory 3 hours. Credit 2.

A general course for all students in agriculture, covering briefly rope-tying and splicing, principles of draft, cultivating, seeding and harvesting machinery, farm power, water supply, elements of leveling, terracing.

Text: Agricultural Engineering, Davidson.

303 Farm Motors. Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{3}$.

Prerequisite: F. E. 101.

A study of the working principles, operation and costs of the various types of gas and oil engines. Gas tractors. Special attention is paid to the modern oil engine as an economical source of power for irrigation and other heavy duty work. Special emphasis is given to the practical application of power to farm machinery.

304 Farm Structures. Class 1 hour, laboratory 4 hours. Credit $2\frac{1}{3}$.

Prerequisite: F. E. 303.

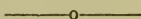
Design, construction, material and cost of farm buildings, including barns, silos, machine sheds, swine and chicken houses. Farm concrete construction.

Text: Farm Structures, Ekblaw.

409 Farm Power Machinery. Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{3}$.

Prerequisite: F. E. 303, 304.

A study of the various power-driven machines of the farm—grinders, shellers, ensilage cutters, threshers, irrigation pumps, electric lighting plants, home water supply systems—in connection with the various prime movers. The installation of gearing, belting and shafting on the farm. Farm power house.



GENERAL AGRICULTURE

402 College and Experiment Station Work, Organization and Function. Class 1 hour. Credit 1.

This course is intended to familiarize the Senior students with the history and organization of the American land grant colleges, including the agricultural experiment stations and the extension divisions. A study is made of the strong and weak points of these institutions as compared with other institutions of higher education in the United States from the standpoint of both the undergraduate and graduate student. The amount of Federal and State aid given these institutions and its distribution into educational, research and extension lines is discussed. The further object is to familiarize the student with the lines of work being undertaken in the various experiment stations and the special features that are made prominent in the various States. The laboratory work will be in the nature of research in the library. The course is designed to prepare students for entrance into college and station work where such is desired and to give those who are going into the more practical application of their calling upon the farm an opportunity to become familiar with the different institutions and the best means of utilizing the information available.

404 Bulletin Review. Class 1 hour, laboratory 2 hours. Credit $1\frac{1}{3}$.

A comprehensive study of technical and popular bulletins, designed to assist the student to get the maximum value from Government and agricultural college publications. Some practice in bulletin writing and editing.

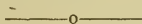
ONE WEEK'S SPECIAL DAIRY COURSE

December 29, 1918, to January 3, 1919.

This special one week's course in dairying is to provide an opportunity for buttermakers, ice cream makers and market milkmen, as well as cream station operators, to study modern methods of handling dairy products, and to become familiar with some of the technical principles and facts regarding the manufacture of butter, ice cream, and the handling of cream and market milk. More investigations are carried on in the manufacture of dairy products than in perhaps any other line of agricultural advancement. The successful manufacturer of dairy products must always keep pace with new, modern ideas, and must be continually studying new methods in order to keep abreast of the new ideas. The entire equipment of the Dairy Department of the A. and M. College will be at the disposal of students in this special dairy course.

Cream station operators will soon be required to grade cream and to buy cream on the quality basis. Instruction and practice in cream grading will be offered as well as instruction in the proper use of the Babcock test.

An examination for cream-testing licenses can be arranged for at the completion of the course.

**SIX WEEKS' REGULAR DAIRY COURSE**

November 10 to December 19, 1918

The six weeks' regular dairy course is designed for young men who wish to enter the field of commercial dairying and become buttermakers, ice cream makers and market milk dealers, as well as for experienced buttermakers, ice cream makers, and milkmen who desire a thorough practical knowledge of dairy manufacturing. Practical instruction will be given in modern methods of buttermaking and ice cream making, as well as some instruction in the manufacture of different kinds of cheese. The course will also include special lectures and demonstrations in the handling and pasteurization of market milk. Students will be given an opportunity to secure practice in the grading and sampling of cream and testing of cream for butterfat, testing acidity of cream, pasteurization of cream, ripening of cream with pure

culture starter, churning, working and printing butter, and making moisture and salt tests of butter. In the course for ice cream makers, students will have facilities of modern freezers to obtain instruction in standardizing mixtures and freezing and hardening of ice cream. Opportunity will also be given in testing ice cream for butterfat, as well as detailed instruction in practice and principles employed in modern ice cream factories. The creamery and ice cream division at the A. and M. College is equipped with the most modern machinery and sanitary appliances to manufacture and handle dairy products in the most up-to-date manner. The course will include special lectures and laboratory, and daily practice in the manufacture of dairy products.

For further information, write to the Dean of Agriculture, Oklahoma A. and M. College, Stillwater, Oklahoma.

THE SCHOOL OF ENGINEERING

ALFRED BOYD, *Dean*

In compliance with the provisions of the Morrill land grant, the teaching of engineering was begun at the Oklahoma Agricultural and Mechanical College by the establishment of a course in mechanical engineering. The first class was graduated in 1902. Later, courses in electrical, civil, architectural and chemical engineering were added in the order named. As far as practicable, in the development of courses, they have been kept closely related to the important industries of the State. With the growth of manufacturing, of the oil industry, the increased use of electrical power, the improvement of highways, of water supply systems, and increased interest in better buildings, the importance of having men with the proper training will be more fully recognized.

There are two large buildings on the campus devoted to the work of instruction in engineering. These are the Engineering Building and the Shop Building. The former was erected in 1912 at a cost of \$75,000.00. It is three stories high, covers an area 160 by 80 feet, and is built of reinforced concrete and brick with stone trimmings. On the ground floor are located the steam and hydraulic laboratories, the electrical laboratory, the laboratories for the testing of structural materials and road materials, storage batteries, room for surveying instruments and office for the dean. On the next floor are the physics laboratory and lecture room, four other lecture rooms for the different departments, rooms for photometry, physical apparatus, and offices for the heads of departments. On the top floor are the large drafting rooms classrooms and offices for several of the departments, and rooms for the storing of records.

The Shop Building is of stone and brick and covers an area of 40 by 200 feet. For a depth of 80 feet it is two stories high and the balance one story. It provides accommodations for the wood shop, machine shop, forge shop and foundry, and a tool room.

The power plant of the College, with its steam boilers, steam engines and generators is also used by the School of Engineering for the purpose of making tests and familiarizing the student with the use of this class of machinery.

Mention should be made of the Engineering Society, an organization composed of students from the various engineering departments. They meet twice a month for the discussion of engineering subjects. These meetings tend to encourage a lively interest in practical engineering work, and give the students confidence in speaking before an audience.

Professional Degrees in Engineering

For information in regard to professional degrees in engineering and the conditions under which they are granted to graduates of the School of Engineering, see Requirements for Graduation.

Experimental Work in Engineering

The departments of the School of Engineering are prepared to carry on in the shops, laboratories and field, research work of value to the industries of Oklahoma. Those lines of investigation are undertaken which are important in the development of the State's resources, or in adding to the health and comfort of the people of the State.

Some of the subjects of particular interest to the people of Oklahoma are the following:

The properties of petroleum and its economical use in the industries.

The utilization of natural gas.

The examination and testing of the various structural and road materials to be found in Oklahoma.

The study of the problems of water supply and sewage disposal as related to the health of rural and urban communities.

Experimental work to determine the proper methods of irrigation and drainage to suit Oklahoma conditions.

COURSES IN THE SCHOOL OF ENGINEERING

The following outline of study represents the required and elective work in the School of Engineering. The courses are numbered, beginning with one hundred in the Freshman year; odd numbers, as 101, represent the first semester's work in the subject and the even numbers, as 102, the second semester's work. Subjects of the Sophomore, Junior and Senior years are numbered accordingly, two hundred for Sophomore, three hundred for Junior and four hundred for Senior work. One hour of laboratory period is equivalent to one-third of a classroom period in estimating the number of hours per week to be taken.

The total requirements for graduation are 128 credits, exclusive of any credits given in military science and physical education. Students will not be allowed to register in fewer than twelve nor more than twenty credit hours.

In the outline below, figures without parenthesis indicate hours of classwork, in parenthesis hours of laboratory work.

Architecture and Architectural Engineering

FRESHMAN YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Eng. 101, College	3	3	Eng. 102, College	3	3
Math. 105, College			Math. 108, Plane		
Algebra	4	4	Trigonometry	3	3
Chem. 101, Inorganic	3 (4)	4½	Chem. 102, Inorganic	2 (4)	3½
Arch. 111, Descriptive			Arch. 112, Descriptive		
Geometry	2	2	Geometry	1 (6)	3
Draw. 101, Freehand			Draw. 104, Freehand		
Drawing	(4)	1½	Drawing	(4)	1½
Arch. 105, Elements of			Arch. 106, Elements of		
Architecture	(4)	1½	Architecture	(6)	2
Physical Education	(3)		Physical Education	(3)	
Military Science	(3)		Military Science	(3)	

Architecture

SOPHOMORE YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Arch. 211, History of			Arch. 212, History of		
Architecture	1 (2)	1½	Architecture	1 (2)	1½
Eng. 209, Technical			Arch. 214, Building		
Writing	2	2	Construction	2	2
C. E. 201, Surveying	(3)	1	Pub. Spk. 123, Essentials	1 (2)	1½
Arch. 207, Drawing from			Arch. 208, Drawing from		
Antique	(4)	1½	Antique	(6)	2
Arch. 209, Architectural			Physics 204, General	3	4
Design	(9)	3	Arch. 210, Architectural		
Arch. 307, Water Color			Design	(9)	3
Painting	(3)	1	Arch. 308, Water Color		
Physics 203, General	3 (3)	4	Painting	(3)	1
Shop 101, Woodwork	(4)	1½	Shop 108, Carpentry	(4)	1½
Military Science	(3)		Military Science	(3)	

JUNIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Arch. 301, History of			Arch. 304, Strength of		
Architecture	1 (3)	2	Materials	2	2
Arch. 303, Applied			Arch. 322, Pen & Ink		
Mechanics	2	2	Rendering	(3)	1
Arch. 321, Water Color			Arch. 314, Drawing from		
Rendering	(3)	1	Antique	(6)	2
Arch. 309, Working Draw-			Arch. 312, Architectural		
ings & Estimates	1 (6)	3	Design	(15)	5
Arch. 311, Architectural			Econ. 406, Economics		
Design	(12)	4	& Contracts	2	2
E. E. 411, Wiring &			Elective	4	4
Illumination	2	2			
Elective	2	2			

SENIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Arch. 401, History of Painting	1	1	Arch. 414, History of Sculpture	1	1
Arch. 403, Life Class	(6)	2	Draw. 406, Clay Modeling..	(4)	1½
Arch. 407, Architectural Design	(21)	7	Arch. 408, Architectural Design	(21)	7
C. E. 401, Structural Design	(6)	2	M. E. 424, Heating & Ventilation	2	2
Arch. 305, Plumbing & Drainage	2	2	Arch. 406, Seminar	1	1
Elective	2	2	Elective	4	4

Architectural Engineering

SOPHOMORE YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Arch. 211, History of Architecture	1	(2) 1½	Arch. 212, History of Architecture	1	(2) 1½
C. E. 201, Surveying	(3)	1	Arch. 214, Building Construction	2	2
Arch. 209, Architectural Design	(9)	3	Physics 204, General	3	(3) 4
Math. 207, Analytical Geometry & Calculus	5	5	Arch. 210, Architectural Design	(9)	3
Physics 203, General	3	(3) 4	Math. 208, Calculus	5	5
Shop 101, Woodwork	(4)	1½	Shop 108, Carpentry	(4)	1½
Military Science	(3)		Military Science	(3)	

JUNIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Arch. 207, Drawing from Antique	(4)	1½	Arch. 310, Advanced Working Drawings	(6)	2
Arch. 309, Working Drawings & Estimates	1	(6) 3	C. E. 302, Mechanics of Materials	3	3
Eng. 209, Technical Writing	2	2	E. E. 412, Dynamo-Electric Machinery	2	2
C. E. 301, Applied Mechanics	3	3	C. E. 308, Testing Laboratory	(3)	1
M. E. 311, Steam & Gas Engines	2	2	C. E. 310, Framed Structures	2	(6) 4
Pub. Spk. 123, Essentials of Public Speaking	1	(2) 1½	Arch. 208, Drawing from Antique	(6)	2
Elective	2	2	Elective	2	2

SENIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Arch. 307, Water Color Painting	(3)	1	Arch. 312, Architectural Design	(15)	5
Arch. 311, Architectural Design	(12)	4	M. E. 424, Heating & Ventilation	2	2
E. E. 411, Wiring & Illumination	2	2	C. E. 402, Concrete Structures	(6)	2
C. E. 411, Steel Construction	2	2	Econ. 406, Economics & Contracts	2	2
C. E. 401, Structural Design	(6)	2	Arch. 308, Water Color	(3)	1
C. E. 415, Reinforced Concrete	2	2	C. E. 308, Testing Laboratory	(3)	1
Arch. 305, Planning & Drawing	2	2	Elective	3	3
Elective	1	1			

Two-Year Special Course in Architecture

FIRST YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Arch. 211, History of Architecture	1	(2) 1½	Arch. 212, History of Architecture	1	(2) 1½
Arch. 207, Drawing from Antique	(4)	1½	Arch. 208, Drawing from Antique	(6)	2
Arch. 307, Water Color Painting	(3)	1	Arch. 308, Water Color Painting	(3)	1
Arch. 111, Descriptive Geometry	2	2	Arch. 112, Descriptive Geometry	1	(6) 3
Arch. 311, Architectural Design	(12)	4	Arch. 312, Architectural Design	(15)	5
Elective	6	6	Elective	4	4

SECOND YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Arch. 301, History of Architecture	1	(3) 2	Arch. 404, Clay Modeling	(6)	2
Arch. 403, Life Class	(6)	2	Arch. 406, Seminar	1	1
Arch. 401, History of Painting	1	1	Arch. 408, Architectural Design	(21)	7
Arch. 407, Architectural Design	(21)	7	Arch. 414, History of Sculpture	1	1
Elective	4	4	Elective	4	4

Chemical, Civil, Electrical and Mechanical Engineering

FRESHMAN YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Eng. 101, College	3	3	Eng. 102, College	3	3
Math. 105, College Algebra	4	4	Math. 108, Plane Trigonometry	3	3
Chem. 101, Inorganic	3	(4) 4½	Chem. 102, Inorganic	2	(4) 3½
Draw. 101, Freehand	(4)	1½	M. E. 102, Engineering Drawing	(4)	1½
Arch. 111, Descriptive Geometry	2	2	Arch. 116, Descriptive Geometry	1	(4) 2½
Shop 101, Woodwork	(4)	1½	Pub. Spk. 123, Essentials of Public Speaking	1	(2) 1½
Military Science	(3)		Shop 104, Woodwork	(4)	1½
Physical Education	(3)		Military Science	(3)	
			Physical Education	(3)	

Chemical Engineering

SOPHOMORE YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Math. 207, Analytics & Calculus	5	5	Math. 208, Calculus	5	5
Physics 201, Engineering	4	(3) 5	Physics 202, Engineering	4	(3) 5
Chem. 201, Qualitative Analysis	2	(6) 4	Chem. 210, Quantitative Analysis	2	(6) 4
Modern Language	3	3	Modern Language	3	3
Military Science	(3)		Military Science	(3)	

JUNIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
C. E. 301, Applied Mechanics	3	3	M. E. 306, Thermo Dynamics	3	3
M. E. 305, Heat Power Engineering	4	4	Chem. 304, Advanced Quantitative Analysis	2	(6) 4
Modern Language	3	3	Modern Language	3	3
Chem. 305, Organic	3	(7) 5½	Bacteriology 310, General	2	(4) 3½
Elective	2	2	Elective	3	3

SENIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Chem. 405, Industrial Chemistry	3	(9) 6	Chem. 406, Industrial Chemistry	3	(9) 6
Chem. 323, Petroleum Technology	2	(4) 3½	Chem. 324, Petroleum Technology	2	(4) 3½
E. E. 413, Direct Current Machinery	3	(3) 4	Elective		4½
Elective	2	2			

Students qualified to carry more than the number of hours required above, may select the extra courses from the list below:

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Chem. 321, Geology	2	2	Chem. 322, Determinative Mineralogy & Blowpipe Analysis	1	(4) 2½
M. E. 403, Gas Power Engineering	2	2	M. E. 420, Refrigeration	2	2
Physics 301, Electrical Measurements	2	(3) 3	Physics 302, Electrical Measurements	1	(3) 2
M. E. 301, Materials of Machines	2	2	Chem. 402, Physical Chemistry	2	(6) 4
R. O. T. C.		2	E. E. 414, Alternating Current Machinery	3	(3) 4
			R. O. T. C.	2	2

Civil Engineering

SOPHOMORE YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Math. 207, Analytics & Calculus	5	5	Math. 208, Calculus	5	5
Physics 201, Engineering	4	(3) 5	Physics 202, Engineering	4	(3) 5
Math. 205, Spherical Trigonometry	1	1	C. E. 204, Railway Surveying	2	(6) 4
Eng. 209, Technical Writing	2	2	Shop 202, Forge		(4) 1½
Shop 203, Foundry		(4) 1½	Military Science		(3)
C. E. 203, Surveying	1	(4) 2½			
Military Science		(3)			

JUNIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
C. E. 301, Applied Mechanics	3	3	C. E. 302, Mechanics of Materials	3	3
C. E. 303, Roads & Pavements	2	2	C. E. 310, Framed Structures	2	(6) 4
C. E. 309, Higher Surveying	2	(4) 3½	Chem. 322, Mineralogy	1	(4) 2½
C. E. 307, Topographical Drawing		(3) 1	C. E. 308, Testing Laboratory		(3) 1
M. E. 311, Steam & Gas Engines	2	2	C. E. 312, Hydraulics	2	(2) 2½
Chem. 321, Geology	2	2	C. E. 314, Railway Engineering	2	2
Elective	2	2	Elective	2	2

SENIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
C. E. 401, Structural Design		(6) 2	C. E. 402, Concrete Structures		(6) 2
C. E. 413, Water Supply	2	2	C. E. 404, Sewerage & Drainage	2	2
C. E. 403, Irrigation	2	2	Econ. 406, Economics & Contracts	2	2
C. E. 415, Reinforced Concrete	2	2	Bact. 402, Sanitary Science	3	3
C. E. 407, Testing Laboratory		(3) 1	E. E. 412, Dynamo Electric Machinery	2	2
Chem. 323, Petroleum Technology	2	(4) 3½	Elective	3½	3½
Elective	4	4			

Electrical Engineering**SOPHOMORE YEAR**

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Math. 207, Analytics & Calculus	5	5	Math. 208, Calculus	5	5
Physics 201, Engineering	4	(3) 5	Physics 202, Engineering	4	(3) 5
Eng. 209, Technical Writing	2	2	M. E. 204, Kinematics	2	(6) 4
M. E. 201, Empirical Machine Design	(6)	2	Shop 202, Forge	(4)	1½
C. E. 201, Elements of Surveying	(3)	1	Military Science	(3)	
Shop 203, Foundry	(4)	1½			
Military Science	(3)				

JUNIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
C. E. 301, Applied Mechanics	3	3	C. E. 302, Mechanics of Materials	3	3
Physics 301, Electrical Measurements	2	(3) 3	Physics 302, Electrical Measurements	1	(3) 2
E. E. 303, Direct Current Machines	2	(3) 3	E. E. 304, Direct Current Machines	3	(4) 4½
M. E. 305, Heat Power Engineering	4	4	C. E. 312, Hydraulics	2	(2) 2½
M. E. 307, Mechanical Laboratory	(3)	1	M. E. 308, Mechanical Laboratory	(3)	1
Shop 301, Machine Shop	(4)	1½	C. E. 308, Testing Laboratory	(3)	1
Elective	2	2	Shop 302, Machine Shop	(4)	1½
			Elective	2	2

SENIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
E. E. 401, Alternating Current Machines	4	(4) 5½	E. E. 402, Alternating Current Machines	4	(6) 6
E. E. 403, Telephony	3	(3) 4	E. E. 404, Electrical Power Transmission	2	2
E. E. 405, Electrical Machine Design	1	(3) 2	M. E. 412, Steam Power Plants	2	(3) 3
Econ. 201, Principles of Economics	3	3	Econ. 406, Economics and Contracts	2	2
Engineering Electives or R. O. T. C.	2	2	Engineering Electives or R. O. T. C.	2	2

Mechanical Engineering**SOPHOMORE YEAR**

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Math. 207, Analytics & Calculus	5	5	Math. 208, Calculus	5	5
Physics 201, Engineering	4	(3) 5	Physics 202, Engineering	4	(3) 5
Eng. 209, Technical Writing	2	2	M. E. 204, Kinematics	2	(6) 4
M. E. 201, Empirical Machine Design	(6)	2	Shop 202, Forge	(4)	1½
Shop 203, Foundry	(4)	1½	Military Science	(3)	
C. E. 201, Surveying	(3)	1			
Military Science	(3)				

JUNIOR YEAR

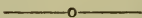
FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
C. E. 301, Applied Mechanics	3	3	C. E. 302, Mechanics of Materials	3	3
M. E. 301, Materials of Machines	2	2	C. E. 308, Testing Laboratory	(3)	1
M. E. 303, Machine Design	3	3	M. E. 304, Machine Drafting	(6)	2
M. E. 305, Heat Power Engineering	4	4	M. E. 306, Thermodynamics	3	3
M. E. 307, Mechanical Laboratory	(3)	1	C. E. 312, Hydraulics	2	(2) 2½
Shop 301, Machine Shop	(4)	1½	M. E. 308, Mechanical Laboratory	(3)	1
Elective	2	2	Shop 302, Machine Shop	(4)	1½
			Elective	2	2

SENIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
M. E. 401, Steam Engine Design	2	(6) 4	M. E. 412, Steam Power Plant Design	2	(3) 3
M. E. 405, Mechanical Laboratory	(6)	2	E. E. 414, Alternating Current Machinery	3	(3) 4
E. E. 413, Direct Current Machinery	3	(3) 4	M. E. 414, Works Management	3	3
Econ. 201, Principles of Economics	3	3	Econ. 406, Economics & Contracts	2	2
Shop 401, Machine Shop	(4)	1½	Electives below	4	4
Electives below	2	2			

SENIOR ELECTIVES

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
M. E. 403, Gas Power Engineering	2		M. E. 410, Pumping Machinery	2	
M. E. 407, Compressed Air Machinery	2		M. E. 416, Thesis	4	
M. E. 421, Hydraulic Machinery	2		M. E. 418, Advanced Design	1 to 4	
R. O. T. C.	2		M. E. 420, Refrigeration	2	
			M. E. 424, Heating & Ventilation	2	
			R. O. T. C.	2	



DEPARTMENT OF ARCHITECTURE

F. W. REDLICH, *Professor*
J. J. PATTERSON, *Instructor*

The courses offered by the department divide themselves into two groups. Both are full professional courses extending over four years. Course I is open to all students studying architecture; Course II for those studying architectural engineering.

Courses I and II

The schedules of Courses I and II conform to the standard minima of the Associated Collegiate Schools of Architecture.

It is the purpose of the department to offer the necessary training in design, construction and the allied subjects that will eventually fit the student for the practice of architecture, and will also enable him upon graduation to be of immediate value as a draftsman. With this end in view, the course of study combines with the strictly professional work the essentials of a liberal education, aiming to give the student as broad a foundation as possible for his future work. The number and scope of the subjects to be covered during the course make it necessary that the student start his architectural work at the beginning of the Freshman year.

The two courses in architecture and architectural engineering run very nearly parallel for the first two years in order to give the

student an opportunity for careful investigation before making a choice. At the beginning of the third year the line of demarcation between the professional work of the two options becomes more marked, and in the fourth year it is very sharply defined, but the general subject common to both options, which continues through the four years, emphasizes the close relationship between the two courses.

The work in design is started after the courses in descriptive geometry, shades and shows and perspective, and the elements of architecture have given the student a good foundation. During the Sophomore year problems in design are taken, involving the use of the orders and other elements in order to train the student in sense of correct form and proportion.

In the Junior and Senior years, plan problems are given and the entire composition of buildings is studied. A series of lectures on the elements and theory of architecture accompanies this work, and frequent sketch problems are given in order to develop rapidity of thought and presentation.

Students in architecture devote 25% of the entire course to design; for those taking architectural engineering, design is decreased to 15%, but 34% of their course consists of engineering studies and advanced construction. Throughout all years of the course in architecture runs some form of freehand drawing, the basic nature of which cannot be overestimated. The history of architecture possesses a cultural as well as a technical value, for its prevailing styles reflect great movements of civilization among races—their migrations, conquests, commercial, social and religious changes. The study of history of architecture commences in the Sophomore year, and with the attendant subjects of ornament, painting and sculpture, continues through the balance of the course in architecture. Students in architectural engineering take less freehand drawing and history than those in architecture. The Freshman year of both courses being alike, ample opportunity is afforded for careful investigation before making a choice.

Of foreign languages, French is the most useful to the architect, and should, therefore, be preferably offered for entrance. The technical terms employed in architecture are largely French, and where the entrance requirement has been met by the offer of

another language, it is desirable that the student take some French after matriculation.

During the summer vacation architectural students are expected to spend as large a part of their time as possible in the offices of practicing architects, and it has been found that those men who regularly follow this plan make the greatest advancement in college work.

The equipment of the architectural lecture room includes a Bausch & Lomb "Universal Balopticon" for the projection of slides and plates, and a carefully selected collection of lantern slides. The drawings, books and journals in the architectural library are freely accessible to students during working hours, but must not be removed from the departmental reading room without special permission, which, however, is readily given for cause. The drafting rooms are provided with "Economy" drawing tables of a type adopted as standard by the department; these have ample drawer capacity for students' work and tools; a top 39 by 72 inches in size for perspectives, and loose, inclined boards 32 by 44 inches for general use.

The studio for freehand drawing is well equipped with practical objects, still life models, simple plaster casts, casts of architectural features and sculpture.

In addition to the full four-year courses, a special course of two years' duration is also offered to qualify men who have had sufficient experience in the office of a practicing architect to enable them to carry on the required work. No entrance examinations for this work will be required. Upon the completion of the required work a certificate of proficiency is given.

Landscape Architecture

For the benefit of those desiring special training in this line of work, an elective course is offered, consisting of six hours a week of drafting. This is open to students of any department and will be adapted to their individual requirements.

SUBJECTS

105 Elements of Architecture. Drafting 4 hours. Credit $1\frac{1}{3}$.

The classic orders of architecture and elementary studies in composition, with drawings rendered in india ink.

106 Elements of Architecture. Drafting 6 hours. Credit 2.

Prerequisite: Arch. 105.

Continuation of the orders and elementary studies in composition.

111 Descriptive Geometry. Class 2 hours. Credit 2.

A course for students in architecture and engineering. Fundamental problems involving points, lines, planes, intersections, and development of surfaces, isometric and oblique projections.

112 Descriptive Geometry. Class 1 hour, drafting 6 hours. Credit 3.

For students of architecture.

Prerequisite: Arch. 111.

The fundamental problems are applied in the delineation of shades and shadows. Perspective drawing.

116 Descriptive Geometry. Class 1 hour, drafting 4 hours. Credit $2\frac{1}{3}$.

For engineering students.

Prerequisite: Arch. 111.

A continuation and practical application of Architecture 111.

207 Drawing from the Antique. Drawing 4 hours. Credit $1\frac{1}{3}$.

Work in pencil, pen and ink, and charcoal, from casts of architectural ornament, architectural fragments and parts of the figure.

208 Drawing from the Antique. Drawing 6 hours. Credit 2.

Prerequisite: Draw. 104.

Work in charcoal and pastel from casts of antique sculpture.

209 Architectural Design. Drafting 9 hours. Credit 3.

Prerequisite: Arch. 106.

A study of architectural composition with library research. Problems in design, composition, planning, motives, details and rendering. Lectures and criticisms.

210 Architectural Design. Drafting 9 hours. Credit 3.

Prerequisite: Arch. 209.

Continuation of problems in design, composition and planning, with researches, lectures and criticisms.

211 History of Architecture. Class 1 hour, research and sketches 2 hours. Credit $1\frac{1}{3}$.

Prerequisite: General History.

Origin and development of historical styles of architecture from the earliest times to the breaking up of the Roman Empire in the West. Typical examples are studied in detail, and for this purpose the lantern is in constant use. Stress is laid on the evolution of styles from changes in structural form, political and religious conditions, and national character.

212 History of Architecture. Class 1 hour, research and sketches 2 hours. Credit $1\frac{1}{3}$.

Prerequisite: Arch 201.

Continuation of the development of historical styles of architecture from the Moslem irruption and the accession of Charlemagne to the opening of the Renaissance, covering the prevailing periods of the Romanesque and Gothic.

214 Building Construction. Class 2 hours. Credit 2.

Building materials and construction. Foundations, footings and walls; stone and brick masonry; concrete, terra cotta and plastering. Fire-resisting construction. Classwork supplemented by drawing and inspection of structures. Carpentrywork; properties and uses of va-

rious woods; methods of framing; mill construction; interior finish, hardware. Technical features of specifications and relation of architect, owner and contractor.

301 History of Architecture. Class 1 hour, research and sketches 3 hours. Credit 2.

Prerequisite: Arch. 212.

Conclusion of the analytical study of the development of architecture from the inception of the Renaissance to modern times. During the latter part of the semester particular attention is given to architectural development in the United States.

303 Applied Mechanics. Class 2 hours. Credit 2.

A course in kinematics, kinetics and statics for architectural students and others who have not had the calculus.

304 Strength of Materials. Class 2 hours. Credit 2.

Prerequisite: Arch. 303.

Continuation of the course in mechanics for students who have not taken the calculus. Graphical methods of determining the elastic curve of beams; centroids and moments of inertia of areas; beams and columns; properties and tests of building materials.

305 Plumbing and Drainage. Class 2 hours. Credit 2.

Plumbing systems and fixtures; water supply and filtration; sewage disposal and general sanitation.

307 Water Color Painting. Drawing 3 hours. Credit 1.

Prerequisite: Arch. 208.

Work from architectural casts and from still life. Outdoor sketching.

308 Water Color Painting. Drawing 3 hours. Credit 1.

Prerequisite: Arch. 307.

Given with special reference to conventional and sketch rendering of architectural subjects. Out-of-door sketching.

309 Working Drawings and Estimates. Class 1 hour, drafting 6 hours. Credit 3.

Prerequisite: Arch. 210.

Under such limitations as a client would be likely to impose, the student prepares working drawings, specifications, typical details and estimates for a residence of his own design.

310 Advanced Working Drawings. Drafting 6 hours. Credit 2.

Prerequisite: Arch. 309.

Continuation of 309. Working drawings of public buildings, office buildings, etc.

311 Architectural Design. Drafting 12 hours. Credit 4.

Prerequisite: Arch. 210.

Advanced problems in design, composition and planning, with research, lectures and criticisms.

312 Architectural Design. Drafting 15 hours. Credit 5.

Prerequisite: Arch. 311.

Continuation of advanced problems in design, composition and planning, with research, lectures and criticisms.

- 314 Drawing from the Antique.** Drafting 6 hours. Credit 2.
Prerequisite: Arch. 208.
Work in water colors and oils from the casts of antique sculpture.
- 321 Water Color Rendering.** Drafting 3 hours. Credit 1.
Prerequisite: Arch. 308.
- 322 Pen and Ink Rendering.** Drafting 3 hours. Credit 1.
Prerequisite: Arch. 207.
Architectural sketching in pen and ink.
- 401 History of Painting.** Class 1 hour. Credit 1.
Illustrated lectures on the history of painting, with special reference to architectural design.
- 403 Life Class.** Drawing 6 hours. Credit 2.
Prerequisite: Arch. 308.
Figure sketching from the live model. Method of execution is entirely individual, whether in color or in black and white.
- 404 Clay Modeling.** Laboratory 6 hours. Credit 2.
Prerequisite: Arch. 207 and 302.
Work from architectural casts and from sketches.
- 406 Seminar.** Class 1 hour. Credit 1.
Professional ethics and practice. Reports, lectures and discussions on selected topics.
- 407 Architectural Design.** Drafting 21 hours. Credit 7.
Prerequisite: Arch. 312.
Extended problems in design, composition and planning, with research and criticism.
- 408 Architectural Design.** Drafting 21 hours. Credit 7.
Prerequisite: Arch. 407.
Continuation of Arch. 407. During the latter half of the semester a single major problem is studied and worked up in detail as a thesis problem.
- 409 House Planning.** Class 2 hours, laboratory 4 hours. Credit 3½.
Study of floor plans which create conditions favorable to simple housework and to effective decoration. Principles of planning, construction, plumbing, and estimates of costs. Correcting and drafting of a cottage plan; planning and drafting a simple dwelling house.
- 410 Interior Design and Decoration.** Drafting 9 hours. Credit 3.
Simple design problems for woodwork, including mantels, book-cases, cabinets, doors and windows, staircases, halls, drawingrooms. Use of materials. Wall decorations in color.
- 414 History of Sculpture.** Class 1 hour. Credit 1.
Illustrated lectures on the history of sculpture with special reference to architectural design.
- 417 Landscape Architecture.** Drafting 6 hours. Credit 2.
This course is elective to students of all departments, and can be arranged to suit their special needs.

DEPARTMENT OF CHEMICAL ENGINEERING

L. CHAS. RAIFORD, *Professor of Chemistry, in Charge*

This course in chemical engineering has been arranged to meet the needs of an increasing number of students who wish to prepare themselves for engineering work that depends wholly or in part on chemical or metallurgical processes. The purpose of the course is to provide the young engineer with a broad and well founded knowledge of both chemistry and mechanical engineering, so that he may be prepared to take up the work of assisting in the design and erection of machinery used in such manufacturing plants as those indicated. But it is the aim of the work also to develop in him the ability to see the bearing of a proposition from the combined viewpoint of the chemist and the engineer, which is essential if one is to appreciate the fact that commercial success in manufacturing depends on the application of scientific principles.

In addition to a knowledge of the principles on which the design, construction and maintenance of a manufacturing plant rests, there must be control of the raw material used and the products turned out. No efficient control can be had except through chemical analyses, and on this account the study of analytical chemistry is specially emphasized. The courses in chemistry and in mechanical engineering are so arranged that the work of the first two years is fundamental in character, and furnishes a suitable foundation for one who would become either a chemist or an engineer; while that of the last two years, though it requires all the essential work for either, allows the student some choice of subjects, depending on the interests he has developed up to that time.

The equipment of both the chemical laboratory and the Department of Mechanical Engineering, described elsewhere in this catalog, is available for the work of this course.

Regular work is supplemented from time to time by the analyses of oil and similar products sent in from different parts of Oklahoma and elsewhere.

For a description of the courses in chemistry, see the Department of Chemistry.

DEPARTMENT OF CIVIL ENGINEERING

ALFRED BOYD, *Professor*
E. R. OLBRICH, *Instructor*

The work of the civil engineer includes highway and railroad location and construction, municipal improvement, hydraulic, sanitary and structural engineering. The purpose of the instruction in this department is to give a training sufficiently broad and comprehensive to fit a student to enter any line of civil engineering practice.

Highway construction is of increased importance, and this fact is recognized by the emphasis placed upon that part of the training which prepares men for this work.

The problems of water supply and sewage disposal are being brought to the attention of almost every community in Oklahoma. The training of city managers who have to deal with these and other municipal problems is identical with that of a well equipped civil engineer.

This department is well supplied with the instruments needed for a thorough course in surveying, including surveys for highways, railroads, drainage and irrigation projects, and geodetic work.

In the course in bridge and structural design, careful study is made of the theory of stresses, and practice given in the actual designing of wood, steel and concrete structures.

The testing laboratory contains all of the machines usually found in a well equipped laboratory for the testing of structural materials. Opportunity is offered for laboratory study of cement and concrete. The machines for the testing of road materials conform to the standards of the United States Office of Public Roads.

Class instruction in hydraulics is supplemented by work in the hydraulic laboratory. Measurements of flow are made for weirs, nozzles, pipes and flumes. Tests of a Pelton wheel, of a centrifugal pump, and of water meters and field measurements by means of a current meter are also made. A thorough training in hydraulics is necessary to deal with problems in water supply, irrigation, and hydraulic development.

In addition to the work in mathematics, physics and chemistry required of all engineering students, certain courses adapted to the needs of civil engineers are required. Spherical trigonometry

is given in the Sophomore year, and an opportunity to elect least squares in the Junior and Senior years. Geology and mineralogy are required subjects. They have a direct bearing upon the study of road and building materials. A course in sanitary biology is offered by the Department of Bacteriology and is of special importance for a clear understanding of sewage disposal and water supply. A course in steam and gas engineering and one in dynamo-electric machinery, given by other departments, are especially adapted to the needs of civil engineering students.

The drafting room for this department is well equipped and well lighted. There is a good collection of working drawings and designs, representing standard practice in different fields of engineering, which are used for reference in several of the courses.

SUBJECTS

201 Elements of Surveying. Fieldwork 3 hours. Credit 1.

Care, use and adjustment of the transit and level. Traversing, leveling, making of profiles, keeping of field notes. A course adapted to the needs of those who require an elementary knowledge of surveying, but do not expect to complete a course in civil engineering.

203 Surveying. Class 1 hour, fieldwork 4 hours. Credit 2½.

Prerequisite: Math. 108.

Care, use and adjustment of compass, transit, level and plane table. Leveling, traversing, topographical measurements and mapping.

204 Railway Surveying. Class 2 hours, fieldwork 6 hours. Credit 4.

Prerequisite: Math. 108.

Exercises in simple, reverse and transition curves; preliminary and location surveys for a short-line railroad; cross-sections and estimates.

Text: Railroad Curves and Earthwork, Allen.

301 Applied Mechanics. Class 3 hours. Credit 3.

Prerequisite: Math. 208.

Principles of statics; theory of structures; dynamics.

Text: Applied Mechanics, Poorman.

302 Mechanics of Materials. Class 3 hours. Credit 3.

Prerequisite: C. E. 301.

Properties of materials; flexure; beams, columns, shafts.

Text: Strength of Materials, Boyd.

303 Roads and Pavements. Class 2 hours. Credit 2.

Methods of construction and maintenance of various types of roads and pavements. Road machinery and road organization.

307 Topographical Drawing. Drawing 3 hours. Credit 1.

Prerequisite: C. E. 203.

Conventional symbols, lettering, preparation of profiles and maps.

- 308 Testing Laboratory.** Laboratory 3 hours. Credit 1.
Prerequisite: C. E. 301.
Testing of sand, cement, concrete, road materials.
- 309 Higher Surveying.** Class 2 hours, fieldwork 4 hours. Credit $3\frac{1}{3}$.
Prerequisite: Math. 205 and C. E. 203.
Determination of azimuth, latitude, longitude and time. Fieldwork in base line measurement, and triangulation.
- 310 Framed Structures.** Class 2 hours, drawing 6 hours. Credit 4.
Prerequisite: C. E. 301.
Stresses in simple structures; graphical analysis; elements of design.
- 312 Hydraulics.** Class 2 hours, laboratory 2 hours. Credit $2\frac{2}{3}$.
Prerequisite: Math. 208.
Fundamental principles and their application; laboratory determination of coefficients.
Text: Textbook of Hydraulics, Russell.
- 314 Railway Engineering.** Class 2 hours. Credit 2.
Methods of construction and maintenance of roadbed and structures; surveys and estimates; organization; signaling; economic theory as applied to location and operation.
- 401 Structural Design.** Drawing 6 hours. Credit 2.
Prerequisite: C. E. 310.
Design of structures of wood and steel, and of reinforced concrete as applied to buildings.
- 402 Concrete Structures.** Drawing 6 hours. Credit 2.
Prerequisite: C. E. 302.
Designing of retaining walls, dams and reinforced concrete arches.
- 403 Irrigation.** Class 2 hours. Credit 2.
Prerequisite: C. E. 312.
Capacity of canals; surveys; sources of supply; design of structures; methods of applying water; irrigation law.
- 404 Sewerage and Drainage.** Class 2 hours. Credit 2.
Prerequisite: C. E. 312.
Design and construction of sewerage systems; modern methods of sewage disposal; methods of drainage.
- 407 Testing Laboratory.** Laboratory 3 hours. Credit 1.
Prerequisite: C. E. 302.
Laboratory examinations of the various materials of construction.
- 408 Thesis.** Laboratory 6 hours. Credit 2.
Original investigation of some engineering subject.
- 411 Steel Construction.** Class 2 hours. Credit 2.
Prerequisite: C. E. 301.
Steel frame construction of buildings and its application to modern fireproof work.
Text: Steel Construction, Burt.

413 Water Supply. Class 2 hours. Credit 2.

Prerequisite: C. E. 312.

Sources of supply. Design, construction and maintenance of waterworks systems. Methods of purification.

Text: Water Supply Engineering, Folwell.

415 Reinforced Concrete. Class 2 hours. Credit 2.

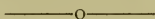
Prerequisite: C. E. 301.

Theory and practice in the design of reinforced concrete.

Text: Reinforced Concrete Construction, Hool.

416 Irrigation and Drainage. Class 2 hours, laboratory 3 hours. Credit 3.

A practical course, dealing with the location and construction of drainage and irrigation ditches, the distribution of water, subsurface and spray systems. The cause and prevention of alkali. Pumping and storage.

**DEPARTMENT OF ELECTRICAL ENGINEERING**

WILLIAM CARL LANE, *Professor*
WILLIAM SPRARAGEN, *Instructor*

The course in electrical engineering is designed to give the student a thorough training in the fundamental principles of electricity and in their application to the problems of the engineer. The successful electrical engineer must have a broad general engineering training in addition to his training in electricity; hence, the student is required to take a number of subjects in the other departments of the School of Engineering. These include applied mechanics, heat power engineering, hydraulics, strength of materials and several other of the allied engineering branches.

The first two years of the course are devoted to the fundamental subjects. During this period the student receives a careful training in English, mathematics, chemistry, physics, drawing, surveying and shop practice.

The electrical engineering work proper begins in the Junior year. The principles of electrical engineering, direct current machinery, wiring and illumination are studied in detail. All courses include laboratory work of a practical nature. The Senior year's work includes a detailed study of alternating current machinery, electric power plants, electric power transmission and telephony. Laboratory practice in alternating currents includes testing of generators, motors, synchronous converters, transformers, rectifiers and meters. Care is taken to coordinate all work of the classroom with the work of the laboratory.

The dynamo laboratory, located on the first floor of the Engineering Building, is equipped with modern direct and alternating current generators and motors, synchronous converters, transformers, rectifiers, arc lamps, starting devices and switchboards. An ample supply of voltmeters, ammeters, wattmeters, tachometers and other necessary measuring instruments is provided. The laboratory equipment is representative of modern practice. No machines are wired up permanently. The students of each class are required to wire up the machines and adjust them for best operation before performing an experiment. At the close of a test all wires are disconnected.

The battery room and the calibrating laboratory are adjacent to the dynamo laboratory. The former contains a 90-cell storage battery for supplying energy for calibrating purposes, a battery for operating the College bell system, and other experimental batteries. The latter is equipped with a Leeds-Northrup potentiometer and standard shunts, a standard Weston voltmeter, a Weston indicating wattmeter and the other necessary auxiliary apparatus for calibrating both laboratory and commercial instruments.

Modern telephone apparatus is provided for use in connection with the course in telephony. A darkroom is equipped with a Leeds-Northrup photometer of the latest type, and is devoted exclusively to photometric work.

SUBJECTS

Electrical Engineering

303 Direct Current Machines. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: Physics 202; Math. 208.

A study of direct current machinery.

Text: Elements of Electrical Engineering, Franklin and Esty (Vol. I).

304 Direct Current Machines. Class 3 hours, laboratory 4 hours. Credit $4\frac{1}{3}$.

Prerequisite: E. E. 303.

A continuation of E. E. 303.

Text: Elements of Electrical Engineering, Franklin and Esty (Vol. I).

401 Alternating Current Machines. Class 4 hours, laboratory 4 hours. Credit $5\frac{1}{3}$.

Prerequisite: Math. 208; E. E. 302, 304.

A study of the fundamentals of alternating currents and their application to alternators, transmission lines, synchronous motors and conversion apparatus.

Text: Principles of Electrical Engineering, Franklin and Esty (Vol. II).

- 402 Alternating Current Machines.** Class 4 hours, laboratory 6 hours. Credit 6.
Prerequisite: E. E. 401.
A continuation of E. E. 401. A study of transformers and alternating current motors.
Text: Principles of Electrical Engineering, Franklin and Esty (Vol. II).
- 403 Telephony.** Class 3 hours, laboratory 3 hours. Credit 4.
Prerequisite: E. E. 301, 302.
Theory and practice in telephony.
Text: American Telephone Practice, Kempster B. Miller.
- 404 Electric Power Transmission.** Class 2 hours. Credit 2.
Prerequisite: E. E. 401, 407.
Includes generation, transmission, distribution and utilization of power by electrical process.
Text: Elements of Electrical Transmission, Ferguson.
- 405 Electrical Machine Design.** Class 1 hour, designing and drafting 3 hours. Credit 2.
Prerequisite: E. E. 304.
Theory and design of a dynamo.
Text: Electrical Machine Design, Gray.
- 410 Electric Railways.** Class 2 hours. Credit 2.
Prerequisite: E. E. 401 or 407.
Elective.
A study of electric railway apparatus and of the best practice.
Text: The Electric Railway, Buck.
- 411 Wiring and Illumination.** Class 2 hours. Credit 2.
Prerequisite: Physics 202.
Theory and practice in the design of the lighting and wiring of buildings, and of the wiring of electrical apparatus in general.
- 412 Dynamo-Electric Machinery.** Class 2 hours. Credit 2.
Prerequisite: Physics 202 and Math. 208.
A brief course in direct and alternating current machinery.
- 413 Direct Current Machinery.** Class 3 hours, laboratory 3 hours. Credit 4.
Prerequisite: Physics 202; Math. 208.
A study of direct current machinery.
Text: Essentials of Electrical Engineering, Wilson.
- 414 Alternating Current Machinery.** Class 3 hours, laboratory 3 hours. Credit 4.
Prerequisite: E. E. 413.
A continuation of E. E. 407.
Text: Same as E. E. 407.

DEPARTMENT OF MECHANICAL ENGINEERING

CHARLES JABLOW, *Associate Professor, in Charge*
C. G. MARTINSON, *Assistant Professor*

The field of the mechanical engineer includes the design and construction of tools and machinery; the solution of problems of power generation, including those presented by the advent of the steam turbine and the gas engine; power transmission by mechanical means; and all questions involving refrigeration, heating and ventilation, gas manufacture and the mechanical equipment of railroads. He is concerned with the design of farm motors and of agricultural machinery; with hydraulic machinery for the water supply of cities; with operations involved in mining and ore preparation; and with the design and equipment of steamships. To him is entrusted the problems concerning pumps, compressors and mechanical conveyors. More broadly still, he has now come to be a conspicuous factor in our industrial development as an organizer, systematizer and cost reducer. It is a matter of record that for three years after graduation most technical men are engaged as draftsmen and subordinates; that for the next five years most are classed as superintendents, engineers-in-fact, and minor executives, and that after eight years the larger proportion of mechanical engineering graduates are firm members, managers, and executive officials. Of the membership of the American Society of Mechanical Engineers, for example, 50% are manufacturers or chief officials; 16½% are engaged in professional practice as consulting specialists; while only 4% are actually concerned with details of mechanical design. The great work of the mechanical engineer is economical production. His success must be based on scientific training, but it must also depend upon the study of current methods. The aim of the course in mechanical engineering is to afford both of the above kinds of training. The student is therefore given a thorough training in the fundamental engineering principles while at the same time he is made conversant with the principles of contemporary engineering practice.

The student must also acquire at least the fundamentals of that broad cultural training which is recognized as indispensable to the success of men who must meet other men of varied experience and work with them in a professional capacity. This latter training is given, not by the addition of uncorrelated subjects, but,

in the main, by directing the attention of the student to his responsibility as a citizen and in showing the application and relation of such subjects as economics, ethics, psychology and sociology to his professional subjects.

There is a certain amount of overlapping of all the engineering courses. The student therefore acquires a broad knowledge of the different branches of engineering. The work of the Freshman year is alike for the M. E., E. E. and C. E. courses. The Sophomore work is alike for the M. E. and E. E. courses. Beginning with the Junior year the differentiation between these courses increases.

In the shops as well as in the drafting rooms, examples are made real by doing away, as far as possible, with exercise pieces as such. Real machines are designed and built for real purposes. Seniors and sometimes Juniors design the machinery that is made. Sophomores work out most of the details, and Freshmen trace the drawings. Each does the work for which he is best fitted. This intensifies the work of the student. The object is not to make engineering less rigid, but to make it more interesting, and hence more tangible.

The steam, gas power, hydraulic and fuel and lubricant testing laboratories are all equipped with apparatus necessary for carrying on complete experiments. The wood shop, forge shop, machine shop and the foundry are likewise completely equipped with tools and machinery necessary to do work along lines obtaining in practice.

SUBJECTS

102 Engineering Drawing. Drafting 4 hours. Credit $1\frac{1}{3}$.

Required of Freshmen in M. E., E. E. and C. E. second semester. Lettering and drawing of machine parts from copy; drawing to scale.

Text: Engineering Drawing, French.

104 Mechanical Drawing. Drafting 4 hours. Credit $1\frac{1}{3}$.

Required of Freshmen in School of Commerce and Marketing, second semester.

Use of instruments, lettering, chart drawing and making of graphs.

201 Empirical Machine Design. Drafting 6 hours. Credit 2.

Prerequisite: M. E. 102.

Required of Sophomores in M. E. and E. E. first semester.

Machine drawing and proportioning of machine parts from the standpoint of good usage and general appearance rather than from the analysis of stresses.

Text: Engineering Drawing, French.

204 Kinematics. Class 2 hours, drafting 6 hours. Credit 4.

Prerequisite: M. E. 201; Math. 108.

Required of Sophomores in M. E. and E. E. second semester.

Theory of mechanism and application to instant-centers, cams, gears, linkages, belting, ballbearings, velocity and acceleration diagrams, etc.

Text: Elements of Mechanism, Schwamb and Merrill.

301 Materials of Machines. Class 2 hours. Credit 2.

Prerequisite: Shop 202, 203; Physics 201; Chem. 102.

Required of Juniors in M. E. first semester.

The manufacture and properties of iron and steel as applied to machine construction; heat treatment of steels; metallography; alloy steels; properties of copper alloys and bearing metals.

Text: Metallurgy of Iron and Steel, Stoughton.

303 Machine Design. Class 3 hours. Credit 3.

Prerequisite: M. E. 201, 204. Concurrent with M. E. 301.

Required of Juniors in E. E. first semester.

Design of machine parts by analysis of stresses applied and selection of proper factors of safety. Applications of the laws of mechanics and kinematics to the design of machines, and a consideration of modifications due to practical conditions.

Text: Machine Design, Kimball and Barr.

304 Machine Drafting. Drafting 6 hours. Credit 2.

Prerequisite: M. E. 303.

Required of Juniors in M. E. second semester.

Drafting room applications of the work given in M. E. 303. Design and working drawings of complete machines. A short time is devoted to the subject of jig and fixture design.

Text: Machine Design, Kimball and Barr; Mechanism, Schwamb and Merrill.

Reference Book: Mark's Mechanical Engineer's Handbook.

305 Heat Power Engineering. Class 4 hours. Credit 4.

Prerequisite: Physics 202. Concurrent with M. E. 307.

Required of Juniors in M. E. and E. E. first semester.

A functional course covering the construction and operation of steam and gas power apparatus, including reciprocating and turbine steam engines, internal combustion engines, gas producers, boilers and power plant auxiliaries.

Text: Heat Power Engineering, Hirshfeld and Barnard; Steam Tables, Marks and Davis.

306 Thermodynamics. Class 3 hours. Credit 3.

Prerequisite: M. E. 305; Math. 208.

Required of Juniors in M. E. second semester.

The laws and properties of gases and vapors as applied to steam engines, gas engines, steam turbines, compressors and refrigerating machinery.

Text: Heat and Power Engineering, Hirshfeld and Barnard.

307 Mechanical Laboratory. Laboratory 3 hours. Credit 1.

Concurrent with M. E. 305.

Required of Juniors in M. E. and E. E. first semester.

Calibration of indicator springs, steam gages, thermometers, dynamometers and planimeters; of steam and fuel calorimeters; of ven-

turi, disk and piston type meters. Proximate analysis of coals. Flash and burning tests of oils. Tests of lubricants and fuel oils. Tests of injectors and separators. Valve-setting with use of indicator. Simple engine and boiler tests.

Text: Power Plant Testing, Moyer.

308 Mechanical Laboratory. Laboratory 3 hours. Credit 1.

Prerequisite: M. E. 307.

Required of Juniors in E. E. and M. E. second semester.

Tests of pumps, air compressors, blowers, steam turbines, and gas, gasoline and oil engines.

Text: Power Plant Testing, Moyer.

311 Steam and Gas Engineering. Class 2 hours. Credit 2.

Prerequisite: Physics 202.

Required of Juniors in C. E. and A. E. first semester.

The construction and selection of power plant machinery, including the different types of engines, boilers, pumps, compressors, refrigerating machines and power plant auxiliaries.

Text: Heat Engines, Allen and Bursley.

401 Steam Engine Design. Class 2 hours, drafting 6 hours. Credit 4

Prerequisite: M. E. 304, 306.

Required of Seniors in M. E. first semester.

A study of the various types of reciprocating steam engines. Theoretical and practical considerations entering into the design of valve gears and engine details. Governor design. Balancing and the determination of flywheel weights. Compound engines. Graphical as well as mathematical methods of design are employed. The principal parts of a highspeed automatic cutoff engine or of a Corliss engine are laid off on the drafting board.

Reference Book: Marks' Mechanical Engineer's Handbook.

403 Gas Power Engineering. Class 2 hours. Credit 2.

Prerequisite: M. E. 306.

Elective for Seniors in M. E. first semester.

A study of modern internal combustion engines (gas, gasoline, oil and alcohol), and of the production of gas for motive power (natural, illuminating, producer, blast furnace and coke oven gas). Gas producers and gas cleaning. Theory and method of internal combustion engine design.

Text: Modern Gas Engine and Gas Producer, Levin.

405 Mechanical Laboratory. Laboratory 6 hours. Credit 2.

Prerequisite: M. E. 307.

Required of Seniors in M. E. first semester.

Tests of pumps, air compressors, blowers, steam turbines, refrigerating machines, and gas, gasoline and oil engines. Special engine and boiler tests; Hirns' analysis and various over-all tests of power plants.

Text: Power plant Testing, Moyer.

407 Compressed Air Machinery. Class 2 hours. Credit 2.

Prerequisite: M. E. 303, 305.

Elective for Seniors in M. E. first semester.

A study of the physical properties of air and of the characteristics of the different types of air compressors with a view to intelligent selection of the proper type and size for a given set of conditions.

Single and multi-stage compression. Hydraulic compression of air. Measurements and transmission of compressed air.

Text: Air Compression and Transmission, Thorkelson.

410 Pumping Machinery. Class 2 hours. Credit 2.

Prerequisite: M. E. 303, 305.

Elective for Seniors in M. E. first semester.

History and development of pumping machinery; force and lift pumps; reciprocating and centrifugal pumps; hydraulic presses and hydraulic pressure lines. Theory and method of design of pumps; study of the characteristics of the various types with a view to intelligent selection of the proper type and size for a given set of conditions.

Text: Pumping Machinery, Greene.

412 Steam Power Plants. Class 2 hours, drafting 3 hours. Credit 3.

Prerequisite: M. E. 305.

Required of Seniors in M. E. and E. E. second semester.

A plant is designed on the drawing board after a careful study has been made of the different types of power plant apparatus; selection of units is then made to fulfill certain given conditions.

414 Works Management. Class 3 hours. Credit 3.

Prerequisite: Shop 302.

Required of Seniors in M. E. second semester.

This course covers the consideration of the entire work, including shops, departments and office as follows: 'Factory location and arrangement, organization and administration, duties of line and staff, cost of production and methods of modern manufacture for the attainment of accuracy and of high speed, time study, motion study, standardization, etc. Employment of labor, labor problems and wage systems. Industrial betterment.

416 Thesis. Classwork or laboratory as assigned. Credit 4.

Prerequisite: All preceding subjects.

Elective for Seniors in M. E. second semester.

The student is assigned a problem requiring some individual research, investigation or design on his part for the purpose of demonstrating ability or aptitude for independent work.

418 Advanced Machine Design. Drafting 3 to 12 hours. Credit 1 to 4.

Prerequisite: M. E. 304, 305.

Elective for Seniors in M. E. second semester.

The work of design will come under some of the following subdivisions: Machine Tools, including fixtures and attachments; Boilers, including a study of the different types of boilers, furnaces, automatic stokers and of smoke abatement; Internal Combustion Engines, a more intensive study than is given in M. E. 305; Gas Power Machinery, including gas producers, scrubbers, tar separators, washers, holders, etc.; Special Machinery.

420 Refrigeration. Class 2 hours. Credit 2.

Prerequisite: M. E. 306.

Elective for Seniors in M. E. and E. E. second semester.

A study of the theory and principles of construction and operation of the different types of apparatus used and of the different systems employed in refrigeration. This course includes icemaking, cold storage, and the further adaptation of refrigeration to the arts.

Text: Mechanical Refrigeration, Macintire.

421 Hydraulic Machinery. Class 2 hours. Credit 2.

Prerequisite: C. E. 312.

Elective for Seniors in M. E. and E. E. second semester.

Theory, design, construction and installation of water wheels, pressure engines, and of modern hydraulic turbines, and a study of their characteristics with a view to intelligent selection of the proper type and size for any given set of conditions. Water power development.

Text: Hydraulic Turbines, Daugherty.

424 Heating and Ventilation. Class 2 hours. Credit 2.

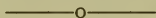
Prerequisite: M. E. 305 or M. E. 311 second semester.

Elective for Seniors in M. E.

Required of Juniors in A. E. and Arch.

Theory and design of the various systems for the heating and ventilation of buildings; hot air, hot water, steam, and the plenum and vacuum systems. Central station or direct heating.

Text: Heating and Ventilating Buildings, Carpenter.

**DEPARTMENT OF SHOP PRACTICE**DEWITT HUNT, *Superintendent of Shops*F. R. BRADLEY, *Assistant*E. D. SODERSTROM, *Assistant*L. K. COVELLE, *Assistant*F. R. CROSBY, *Assistant*

The work in the shops is intended to serve (1) Students of engineering who require training in the methods of modern shop processes, and the principles underlying efficient production; (2) students of other divisions of the College who need a less extensive training in shop work; (3) those who expect to become teachers of manual training and of vocational subjects; (4) students, not of collegiate grade, who are seeking intensive training along some vocational line.

The most remarkable achievement in shop practice in the last decade has been the reduction of each tool process to its simplest and most usable form. All of the courses in shop practice are organized for the purpose of presenting the recognized elemental tool processes, and are intended to cover nearly all the general processes in each division. Lectures are given each week in every course outlining some important phase of the work to be covered.

SUBJECTS**Shop 101 Woodwork.** Shop practice 4 hours. Credit 1½.

Required of Freshmen in M. E., E. E., Ch. E. and C. E. first semester.

The student in this course is required to make a graded set of exercises in woodwork and receives practice in the use and care of hand tools. One-half time is given to wood turning, and during the latter part of the semester patternmaking is taken up.

Shop 104 Woodwork. Shop practice 4 hours. Credit $1\frac{1}{3}$.

Prerequisite: Shop 101.

Required of Freshmen in Ch. E., C. E., E. E. and M. E. courses.

The student is required to make a graded set of wood patterns. As far as possible all exercises are selected from designs of machines to be built in the shops. The course also includes core box construction. Lectures are given on pattern shop equipment and on special woodworking machinery. The text used is Wood Patternmaking by Purfield.

Shop 108 Carpentry. Shop practice 3 hours. Credit 1.

Required of Freshmen students in Agriculture.

A course in toolwork suitable for farm use, embracing sawing and planing to dimensions, fastening with nails and screws; the elements of framing and the cutting of rafters.

Shop 202 Forge. Shop practice 4 hours. Credit $1\frac{1}{3}$.

Required of Sophomores in M. E., E. E. and C. E. second semester.

The student is required to make a graded set of forgings and the various types of welds. Tool-dressing, hardening and tempering, casehardening, and the heat treatment of carbon and high-speed tool steels is performed by the student. Lectures are given on the study of wrought metals and on heat treatment.

Text: Forge Practice, Bacon.

Shop 203 Foundry. Shop practice 4 hours. Credit $1\frac{1}{3}$.

Required of Sophomores in M. E., E. E. and C. E. first semester.

The student is required to make a graded set of molds of patterns which, for the most part, are to be used on machines or apparatus that is to be built in the shops. Preparation and charging the cupola, pouring off heats and mixing and baking cores. Lectures are given on modern foundry practice.

Text: Elementary Foundry Practice, Richards.

Shop 205 Agricultural Forging. Shop practice 3 hours. Credit 1.

Required of Sophomore students in Agriculture.

The work in this course covers the shaping and welding of steel, the forging of farm machinery parts, drilling metals and other problems in forging adaptable to farm needs.

Shop 301 Machine Shop. Shop practice 4 hours. Credit $1\frac{1}{3}$.

Required of Juniors in M. E. and E. E. first semester.

Shop 302 Machine Shop. Shop practice 4 hours. Credit $1\frac{1}{3}$.

Prerequisite: Shop 301.

Required of Juniors in M. E. and E. E. second semester.

Shop 401 Machine Shop. Shop practice 4 hours. Credit $1\frac{1}{3}$.

Prerequisite: Shop 302.

Required of Seniors in M. E. first semester.

The student in these courses is required to make a graded set of machine parts. As far as possible all exercises are selected from designs of machines that are to be built in the shops. Lectures are given on the art of cutting metals.

Text: Machine Shop Practice, Kaup.

Training of Teachers of Manual Training and the Trades

To students completing all of the courses listed below, who also have 12 hours credit in Education and who have college credits sufficient to complete Sophomore work, a special certificate will be issued. This certificate is authorized by the State Board of Education.

To men skilled in any trade, the courses in Theory of Teaching are open so that such men may be prepared for teaching. Teachers of trades are not required to have college degrees, so this offers opportunity for fairly well educated carpenters, auto-repairmen, and others to prepare themselves to teach, by attending these courses.

SUBJECTS

M. T. 101 Benchwork. Shop practice 4 hours. Credit $1\frac{1}{3}$.

Prerequisite: Woodwork 11 and 12, or their equivalent.

This course covers the use of hand tools, the making of exercises involving planing, screw construction, curve forming, the dado joint and its various applications in half-lap construction, and includes elementary wood finishing.

Text: Essentials of Woodworking, Griffith.

M. T. 102 Cabinetmaking. Shop practice 4 hours. Credit $1\frac{1}{3}$.

Prerequisite: Shop 101.

The application of the use of woodworking machines is made in the completion of a class project involving mortise and tenon joints and paneling.

Text: Woodwork for Secondary Schools, Griffith.

M. T. 103 Mechanical Drawing. Drawing 4 hours. Credit $1\frac{1}{3}$.

This work is arranged for those who expect to teach. A series of problems arranged suitably in pedagogical sequence is given. The making of working drawings, tracings and blueprints, machine details and assembled drawings make up the subject matter of this course.

Text: Applied Mechanical Drawing, Matthewson and Stewart.

M. T. 106 Mechanical Drawing. Drawing 4 hours. Credit $1\frac{1}{3}$.

For manual training teachers.

A study of orthographic projections, development of surfaces, intersections, isometric projections, and a brief study of house planning. This course is planned to give the high school manual training teacher a general view of the field of mechanical drawing.

Text: Applied Mechanical Drawing, Matthewson and Stewart.

M. T. 201 Advanced Wood Turning. Shop practice 4 hours. Credit $1\frac{1}{3}$.

Prerequisite: For credit Woodwork 21.

Practice in fancy turning, involving gluing up stock for spindle turning, faceplate turning of cups, trays, covered boxes, table legs, spiral turning and mandrel work.

M. T. 202 Art Forging. Shop practice 4 hours. Credit $1\frac{1}{2}$.

Prerequisite: Forging 201.

An advanced course in forging, adapting the work to the needs of a high school forge shop where a large proportion of interest in the work is necessary.

Text: Art Forging, Googerty.

M. T. 301 Care of Shop Equipment. Lecture and Shop practice 2 hours. Credit $\frac{3}{4}$.

Lectures and practice involved in the care of shop tools, saw-filing, sharpening of edge tools, care of machines and installation of shop equipment will be given in this course.

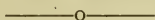
M. T. 302 Methods of Organization in Manual Training. Lecture 2 hours, practice 2 hours. Credit $2\frac{3}{4}$.

Lectures on methods of teaching and organization of the subject matter are given each week, and students are required to assist in shop classes two hours each week for practice teaching.

M. T. 304 Furniture Design. Class 2 hours. Credit $\frac{3}{4}$.

Prerequisite: Mech. Draw. 11 and 12.

This is primarily a course in drawing in which the student designs pieces that may be made in the shop. The designing is done from a standpoint of adapting the model to shop classes. A tracing is kept of each piece designed and an exchange of shop drawings thus established. Students may make blueprints from any of these tracings and thus go out with a well established, graded set of models.



VOCATIONAL TRAINING

Students of secondary school rank who wish to learn a trade, or students of collegiate grade who wish to specialize in a trade for teaching may enroll in any of the following courses:

Vocational Carpentry

Vocational Cabinetmaking

Vocational Machine Shop

Vocational Forging

Vocational Auto Repairing

Vocational Printing.

Students in this work are required to enroll for 16 hours per week of shopwork, 4 hours per week of mechanical drawing, and may enroll for the balance of their time in any other work suited to their needs. College students expecting to teach trades should prepare themselves in two closely related trades, such as carpentry and cabinetmaking, or machinshop and forging. For more complete outlines see Secondary School.

THE SCHOOL OF HOME ECONOMICS

RUTH MICHAELS, *Dean*

Courses of study in home economics have been developed as a result of social and economic changes. These changes have created a demand for an education which will prepare young women to be more serviceable in their homes and communities. In keeping with this idea, the course includes those subjects which will make not only specially trained workers, but also broadly educated young women.

Many opportunities are open for young women who are trained along these lines. In the teaching profession, openings are found in city schools, consolidated and rural schools, and provision is made at the College for special training in this work. The work in this field is strengthened by the fact that the College course in home economics has been approved as a teachers' training course by the Federal Board of Vocational Education and Smith-Hughes funds are available for the work. In other lines, aside from teaching, there are openings for young women as designers, house furnishers and decorators; in the extension field; and as managers in various institutions.

The School of Home Economics offers the following work:

1. A four-year course, leading to the degree of Bachelor of Science. This course of study is planned for those young women who wish (1) to combine the study of home problems and related arts and sciences with the academic work; (2) to become teachers of home economics; (3) to follow the work as dietitians; as directors of institutions; or in various commercial lines.

2. Food and textile courses for teachers during the Summer School which will enable teachers to prepare themselves for the certificate examinations in these subjects, and which will also help them in planning courses of study, in the selection of equipment, and in the arranging of a laboratory for their schools. These courses will also include a discussion of the current problems arising in the field of home economics.

The purpose of the short course is to provide in the limited time such training as will be most helpful to the students entering the course.

3. Courses during Farmers Week for the women who are interested in the study of household problems, and who cannot regularly enroll for college attendance. Work of the following type will be handled by lectures, laboratory and demonstration methods: Feeding of various groups of people; methods of preparation and service of these foods; household sanitation; house furnishing, house decoration; selection of materials for clothing; cutting and making garments.

For Vocational courses, see Secondary School.

COURSES IN THE SCHOOL OF HOME ECONOMICS

The following outline of study represents the required and elective work in the School of Home Economics. The courses are numbered, beginning with one hundred in the Freshman year; odd numbers, as 101, represent the first semester's work in the subject and the even numbers, as 102, the second semester's work. Subjects of the Sophomore, Junior and Senior years are numbered accordingly, two hundred for Sophomore, three hundred for Junior and four hundred for Senior work. One hour of laboratory period is equivalent to one-third of a classroom period in estimating the number of hours per week to be taken.

The total requirements for graduation are 128 credits exclusive of any credits given in physical education. Students will not be allowed to register in less than 12 nor more than 20 credit hours.

In the outline below figures without parenthesis indicate hours of classwork, in parenthesis hours of laboratory work.

FRESHMAN YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
H. E. 105, Clothing Construction and Textiles	2 (4)	3½	H. E. 106, Elementary Dressmaking and Textiles	2 (4)	3½
Chem. 101, Inorganic	3 (4)	4½	Chem. 102, Inorganic	2 (4)	3½
Eng. 101, College	3	3	Eng. 102, College	3	3
Draw. 105, Industrial Art			Draw. 106, Constructive Art Application	(4)	1½
Drawing	(4)	1½	Zool. 102, Economic	2 (4)	3½
Physics 103, Elementary	2 (4)	3½	Pub. Spk. 123, Essentials of Public Speaking	1 (2)	1½
H. E. 103, Introduction to Home Economics	1	1	Physical Education	(3)	
Physical Education	(3)				

SOPHOMORE YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
H. E. 203, Food Study	2 (4)	3½	H. E. 204, Food Study	2 (4)	3½
Chem. 207, Qualitative Analysis	1 (3)	2	Chem. 208, Food Chemistry	1 (6)	3
Chem. 205, Organic	2 (3)	3	Modern Language	3	3
Modern Language	3	3	Eng. 208, English Literature	3	3
Eng. 207, English Literature	3	3	Physiol. 202, Advanced	3 (2)	3½
H. E. 209, Advanced Textiles	1 (2)	1½	Physical Education	(3)	
Physical Education	(3)				

JUNIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
H. E. 311, Food and Nutrition	2	(2) 2½	H. E. 306, Food Service	1 (4)	2½
H. E. 307, History of Costume	2	2	H. E. 310, Advanced Dressmaking	(4)	1½
H. E. 309, Drafting and Modeling	(4)	1½	H. E. 312, Household Management	2 (3)	3
Bact. 303, Household	2 (4)	3½	Econ. 308, Business for Women	2	2
Eng. 201, Advanced Composition or			Hist. 306, Industrial History of United States	3	3
Eng. 203, News Writing	2	2	Eng. 202, Advanced Composition or		
H. E. 313, Clothing Appreciation	(6)	2	Eng. 204, Magazine and Editorial Writing	2	2
Electives	3	3	Electives	2	2

SENIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
H. E. 405, Home Economics Education	2 (4)	3½	H. E. 406, Home Economics Education	2 (4)	3½
H. E. 407, Dietetics	2 (3)	3	H. E. 404, House Furnishing	1 (4)	2½
H. E. 413, Advanced Tailoring	(4)	1½	H. E. 414, Art Needlework or		
H. E. 415, The House	2 (2)	2½	H. E. 416, Experimental Cookery	(4)	1½
H. E. 417, Cafeteria Practice or			H. E. 418, Household Administration	2 (3)	3
H. E. 419, Millinery	(3)	1	Electives	6	6
Electives	5	5			

Students in the School of Home Economics who desire to teach will elect the following courses in Education:

Psychology, 2 hours.

Principles of Education, 2 hours.

History of Modern Education, 2 hours.

Methods and Management, 2 hours.

Other courses in Education, 4 hours.

H. E. 420, History of Home Economics, 1 hour.

FOODS, COOKERY AND HOME MANAGEMENT

RUTH MICHAELS, *Professor*
 AVIS GWINN, *Assistant Professor (Supervisor of Teacher-Training Courses)*
 BERNICE WAIT, *Instructor*
 EDITH GWINN, *Instructor*

The department has well equipped office, laboratories and lecture room. The laboratories are finished in white enamel and are equipped for the various lines of work, and adjoining the laboratories are storerooms and a dining room; the latter furnished in attractive style is used in connection with the planning and serving of meals. In the library may be found splendid reference books and bulletins, as well as the technical magazines.

SUBJECTS

103 Introduction to Home Economics. Class 1 hour. Credit 1.

A lecture course covering the essential points in hygiene, nutrition, dress and surroundings, as applied to the student's life; a study of women's education with special reference to home economics and the vocations opening in this field.

203 Food Study. Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{3}$.

Prerequisite: Chem. 102; Zool. 102.

This course introduces the scientific and economic study of food-stuffs. The work in the laboratory consists of experimental study of food processes as applied to the various foods, and these are illustrated by the preparation and combination of simple foods.

204 Food Study (continued). Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{3}$.

Prerequisite: H. E. 203.

Continuation of Home Economics 203.

Text: Food Products, Sherman.

306 Food Service. Class 1 hour, laboratory 4 hours. Credit $2\frac{1}{3}$.

Prerequisite: H. E. 311.

Preparation and service of meals. Computation of cost and dietetic values of same. Selection and marketing and storage of food materials.

311 Nutrition. Class 2 hours, laboratory 2 hours. Credit $2\frac{2}{3}$.

Prerequisite: H. E. 204; Chem. 208; Physiol. 202.

Study of fuel value and metabolism of foods. Also the relation between their nutritive and economic values.

Text: Chemistry of Foods, Sherman; Manual of Dietetics, Rose.

312 Household Management. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: General chemistry.

Care of the home from the chemical, economic and practical standpoint. The cleaning (processes) involved in care of the home. Special study of sickroom and its care. Use of disinfectants and practice home nursing.

405 Home Economics Education. Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{3}$.

Prerequisite: All preceding work in the School of Home Economics.

Course is designed for students intending to teach home economics. Lectures and conferences on courses of study; equipment and maintenance of the work, as well as observation, demonstration and practice classes are required.

406 Home Economics Education. Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{3}$.

Prerequisite: H. E. 405.

Continuation of Home Economics 405.

Text: Methods of Teaching Home Economics, Kinne; Domestic Art in Women's Education, Cooley.

407 Dietetics. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: H. E. 305.

The study of the diet of individuals and groups under varying conditions of health and environment.

416 Experimental Cookery. Laboratory 4 hours. Credit $1\frac{1}{3}$.

Prerequisite: H. E. 407.

Study of individual problems. Each student selects some work in foods or related subjects.

417 Cafeteria Practice. Laboratory 3 hours. Credit 1.

Prerequisite: H. E. 306.

This course is intended for students who are interested in problems connected with the management of a school cafeteria.

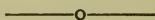
418 Household Administration. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: All previous courses required in Home Economics.

Study of the organization and control of the household. Students to live in practice home where detailed studies are made of the time and financial expenditures involved in the household processes.

420 History of Home Economics. Class 1 hour. Credit 1.

Elective. Open to Seniors only. Study of home economics movement.

**TEXTILES, CLOTHING AND SHELTER**

NORA A. TALBOT, *Professor*
HELEN WENTWORTH, *Instructor*
BETH CROWLEY, *Instructor*

The department is located in the east wing of the Woman's Building and has well equipped sewing laboratories, locker room and office. The laboratories are furnished with sewing tables, sewing machines, electric irons, dress forms, drafting systems, looms, illustrative material, and textile exhibits.

The following courses in Textiles, Clothing and Shelter have a two-fold aim:

The first is to develop skill in sewing, in application of good design, in choosing clothes, styles and materials, and the application of the foregoing to practical problems in clothing.

The second, that of a professional aim, added to the first, is the study of subject matter, processes and projects, teaching possibilities, methods of presentation and class management through practice teaching.

SUBJECTS**105 Clothing Construction and Textiles.** Class 2 hours, laboratory 4 hours. Credit 3½.

Study of textile fibers and fabrics; care and repair of clothing. Making of undergarments and made-over woolen dress.

106 Elementary Dressmaking and Tailoring (textiles continued). Class 2 hours, laboratory 4 hours. Credit 3½.

Prerequisite: H. E. 105.

Projects and processes of elementary dressmaking and tailoring. Text: Textiles, Woolman and McGowan.

- 209 Advanced Textiles.** Class 1 hour, laboratory 2 hours. Credit $1\frac{2}{3}$.

Prerequisite: H. E. 106; Chem. 102.

Study of textile manufacture from fiber to fabric; standard and fancy weaves, and prices of fabrics. Testing fabrics for pure or adulterated materials. The organization of subject content and methods of teaching the same.

Text: Textiles, Woolman and McGowan.

- 307 History of Costume.** Class 2 hours. Credit 2.

Prerequisite: H. E. 206.

This course includes a survey of ancient costume, its development through modern times, its relation to social and political conditions.

- 309 Drafting and Modeling.** Laboratory 4 hours. Credit $1\frac{1}{3}$.

Prerequisite: H. E. 311.

Course includes drafting of garments, alteration of patterns, study of line and form, making of tight-fitting lining and fancy waist. Modeling in paper a dress for use in Home Economics 310.

- 310 Advanced Dressmaking.** Laboratory 4 hours. Credit $1\frac{1}{3}$.

Prerequisite: H. E. 309.

Problems include construction of gowns, based on principles of H. E. 313.

- 313 Clothing Appreciation.** Laboratory 6 hours. Credit 2.

Study of dress from an economic, hygienic and artistic standpoint. (To run parallel with H. E. 307.)

- 404 House Furnishing.** Class 1 hour, laboratory 4 hours. Credit $2\frac{1}{3}$.

Prerequisite: H. E. 410.

Furnishing a house from an economical, sanitary and attractive standpoint.

- 413 Advanced Tailoring.** Laboratory 4 hours. Credit $1\frac{1}{3}$.

Prerequisite: H. E. 206 and 308.

Problems include tailored models and a tailored suit.

- 414 Art Needlework.** Laboratory 4 hours. Credit $1\frac{1}{3}$.

Prerequisite: H. E. 206.

The ornamental stitches are given in making a sampler, and their application to various articles.

- 415 The House.** Class 2 hours, laboratory 2 hours. Credit $2\frac{2}{3}$.

Prerequisite: Bact. 303.

Evolution of the house. Study of modern house, its situation, surroundings and floor space arrangement from economic, artistic and sanitary standpoints.

- 419 Millinery.** Laboratory 3 hours. Credit 1.

Prerequisite: H. E. 206 and 308.

Problems include tailored models and a tailored suit.

THE SCHOOL OF SCIENCE AND LITERATURE

L. L. LEWIS, *Dean*.

The courses in the School of Science and Literature offer a sound basis for training in mathematics, chemistry, physics, biological sciences and in the languages. It is also becoming more and more evident that one's education should include some work in history, social science and in economics. These related subjects give a better understanding of one's duties and responsibilities as a citizen, and a broad and liberal view of the relations of the individual to society.

The work of the school is presented to the prospective student along three lines. The Freshman year is the same for those electing the General Science and the Exact Science work. For those electing the General Literature course, zoology and economics may be substituted for the mathematics of this year. With this minor difference in the Freshman year, the differentiation of the work in the three divisions appears in the Sophomore year. First, the general science work, where biological and chemical sciences represent a large part of the science work offered; second, the exact science work, represented largely by mathematics, physics and chemistry; and third, in the general literature division, where work in English and the foreign languages represents a large portion of the course, but opportunities are offered for work in sociology, economics and education. Where other courses offer vocational subjects, the science and literature work, by means of groups of electives, offers special opportunities for work in either the sciences or languages. Opportunities for selecting work of this character meets the needs of students desiring a liberal education as a foundation for professional courses, as law or medicine, as well as those students who desire to secure a training that is well balanced in respect to literature, science and cultural subjects.

Electives

Students who elect either the exact or general science work will be permitted to substitute in either of these courses work selected from the other course, and to some extent work selected from other courses offered in the College. Such substitutions will be permitted after consultation with the dean of the school, and approval of the Committee on Substitutions.

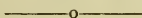
Electives in the general literature group are so arranged as to permit the student to elect along the following lines: Foreign language, social science, economics or science. Students should select their electives along one of these lines.

Relations to Other Schools

Besides the instruction given to students in the School of Science and Literature, the instructional force gives much of the collateral work offered in the other schools of the College. Other schools of the College cooperate in giving some of the work offered in the School of Science and Literature.

Equipment

All of the departments represented in the School of Science and Literature are well equipped to give the work they offer. The laboratories are especially well equipped for scientific work in chemistry, physics, botany and bacteriology.



COURSES IN THE SCHOOL OF SCIENCE AND LITERATURE

The following outline of study represents the required and elective work in the School of Science and Literature. The courses are numbered, beginning with one hundred in the Freshman year; odd numbers, as 101, represent the first semester's work in the subject and the even numbers, as 102, the second semester's work. Subjects of the Sophomore, Junior and Senior years are numbered accordingly—two hundred for Sophomore, three hundred for Junior and four hundred for Senior work. One hour of laboratory period is equivalent to one-third of a classroom period in estimating the number of hours per week to be taken.

The total requirements for graduation are 128 credits exclusive of any credits given in military science and physical education. Students will not be allowed to register in less than 12 nor more than 20 credit hours.

In the outline below, figures without parenthesis indicate hours of classwork; in parenthesis hours of laboratory work.

Any student may elect the work of the Reserve Officers Training Corps, which counts 2 hours credit in each semester of the Junior and Senior years. This credit will be accepted as a substitute for elective work, or for required work by special arrangement.

FRESHMAN YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Chem. 101, Inorganic	3	(4) 4½	Chem. 102, Inorganic	2	(4) 3½
Eng. 101, College	3	3	Eng. 102, College	3	3
Latin 101, Caesar			Latin 102, Caesar		
or			or		
Foreign Language,			Foreign Language,		
Advanced	3	3	Advanced	3	3
Math. 105, Algebra	4	4	Math. 108, Trigonometry	3	3
Draw. 101, Freehand	(4)	1½	Draw. 102, Freehand	(4)	1½
Physical Education	(3)		Pub. Spk. 123, Essentials		
Military Science	(3)		of Public Speaking	1	(2) 1½
			Physical Education	(3)	
			Military Science	(3)	

General Science

SOPHOMORE YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Chem. 201, Qualitative			Chem. 210, Quantitative		
Analysis	2	(6) 4	Analysis	2	(6) 4
Eng. 201, Advanced			Eng. 202, Advanced		
Composition			Composition		
or			or		
Eng. 203, News Writing	2	2	Eng. 204, Magazine and		
Eng. 205, Current			Editorial Writing	2	2
Literature	1	1	Oratory 202	2	2
Zool. 201, General	3	(4) 4½	Zool. 210, Comparative		
Physics 203, General	3	(3) 4	Anatomy	2	(4) 3½
Pub. Spk. 201, Argumen-			Physics 204, General	3	(3) 4
tation and Debate	2	2	Math. 204, Astronomy	2	2
Military Science	(3)		Military Science	(3)	
Physical Education			Physical Education		
(Women)	(3)		(Women)	(3)	

JUNIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Bot. 101, General	2	(4) 3½	Bot. 102, General	2	(4) 3½
Chem. 305, Organic	3	(7) 5½	Chem. 304, Advanced		
Ento. 202, General	3	(2) 3½	Quantitative	2	(6) 4
Foreign Language	3	3	Bact. 310, General	3	(4) 4½
			Hist. 306, Industrial	2	2
			Foreign Language	3	3

SENIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Edu. 301, Psychology	3	3	Edu. 302, Applied		
Bact. 403, Technical	3	(4) 4½	Psychology	3	3
Zool. 401, General Biology..	3	(2) 3½	Bact. 404, Immunity	3	(4) 4½
Foreign Language	2	2	Bot. 304, Plant		
Electives		2½	Physiology	2	(2) 2½
			Foreign Language	2	2
			Electives		3

SENIOR ELECTIVES

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Ento. 303	2	(4) 3½	Zool. 402	2	(4) 3½
Bot. 401	1	(6) 3	Ento. 306	3	(2) 3½
Chem. 401	3	(6) 5	Chem. 402	2	(6) 4
Bact. 405	2	(4) 3½	Bact. 402	3	3
			Physiol. 202	3	(2) 3½

Exact Science

SOPHOMORE YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Eng. 201, Advanced Composition or Eng. 203, News Writing	2	2	Eng. 202, Advanced Composition or Eng. 204, Magazine and Editorial Writing	2	2
Eng. 205, Current Literature	1	1	Pub. Spk. 202, Oratory	2	2
Chem. 201, Qualitative Analysis	2 (6)	4	Chem. 210, Quantitative Analysis	2 (6)	4
Physics 203, General	3 (3)	4	Physics 204, General	3 (3)	4
Math. 207, Analytics and Calculus	5	5	Math. 208, Calculus	5	5
Military Science	(3)		Military Science	(3)	
Physical Education (Women)	(3)		Physical Education (Women)	(3)	

JUNIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Physics 303, Advanced	3 (3)	4	Physics 304, Advanced	3 (3)	4
Chem. 305, Organic	3 (7)	5½	Chem. 304, Advanced Quantitative Analysis	2 (6)	4
Math. 301, Differential Equations	3	3	Math. 302, Differential Equations	3	3
Foreign Language	3	3	Foreign Language	3	3
Pub. Spk. 201, Argumentation and Debate	2	2	Hist. 306, Industrial History of U. S.	2	2

SENIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Physics 403, Advanced	3 (4)	4	Physics 420, Teaching of Physics	1	1
Chem. 401, Advanced Inorganic	3 (6)	5	Physics 404, Advanced	2 (3)	3
Edu. 301, Psychology	3	3	Chem. 402, Physical	2 (6)	4
Foreign Language	2	2	Edu. 302, Applied Psychology	3	3
Chem. 321, Geology	2	2	Foreign Language	2	2
			Math. 204, Astronomy	2	2

General Literature

FRESHMAN YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Chem. 101, Inorganic	3 (4)	4½	Chem. 102, Inorganic	2 (4)	3½
Eng. 101, College	3	3	Eng. 102, College	3	3
Foreign Language	3	3	Foreign Language	3	3
Math. 105, Algebra	4	4	Math. 108, Trigonometry		
or (Zool. 201, General	3 (4)		Econ. 104, Products of Commerce	3	3
Draw. 101, Freehand	(4)	1½	Draw. 102, Freehand	(4)	1½
Edu. 101, Psychology	2	2	Pub. Spk. 123, Essentials of	1 (2)	1½
Physical Education (Women)	(3)		Physical Education (Women)	(3)	
Military Science	(3)		Military Science	(3)	

SOPHOMORE YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Eng. 201, Advanced Composition			Eng. 202, Advanced Composition		
or			or		
Eng. 203, News Writing	2	2	Eng. 204, Magazine and Editorial Writing	2	2
Eng. 207, English Literature	3	3	Eng. 208, English Literature	3	3
Foreign Language	3	3	Foreign Language	3	3
Hist. 201, United States	3	3	Hist. 202, United States	3	3
Physics 203, General	4	4	Physics 204, General	4	4
Military Science	(3)		Military Science	(3)	
Electives	1	1	Electives	1	1

SOPHOMORE ELECTIVES

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Foreign Language	3	3	Foreign Language	3	3
Agriculture	3	3	Agriculture	3	3
Eng. 205	1	1	Eng. 206	1	1
Econ. 201	3	3	Econ. 202	3	3
Chem. 321	2	2	Math. 204	2	2
Pub. Spk. 201	2	2	Pub. Spk. 202	2	2
			Physics 201	2	(4) 3½

JUNIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Eng. 303, American Literature			Eng. 304, American Literature		
or			or		
Eng. 305, Language	2	2	Eng. 306, Language	2	2
Foreign Language	3	3	Foreign Language	3	3
Hist. 301, English History..	3	3	Hist. 302, English History..	3	3
Edu. 301, Psychology	3	3	Edu. 302, Applied Psychology	3	3
Electives	5	5	Electives	5	5

JUNIOR ELECTIVES

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Foreign Language	3	3	Foreign Language	3	3
Eng. 307	2	2	Eng. 308	2	2
Pub. Spk. 301	2	2	Pub. Spk. 302	2	2
Econ. 301	3	3	Soc. Sci. 304	2	2
Soc. Sci. 301	2	2	Econ. 312	3	3
Bot. 101, General	2	(4) 3½	Bot. 102, General	2	(4) 3½
Eng. 405 or 407 (alternate years)	2	2	Eng. 406 or 408 (alternate years)	2	2

SENIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Eng. 401, Carlyle and Ruskin	3	3	Eng. 402, Drama	3	3
Foreign Language			Foreign Language		
or			or		
Econ. 417	3	3	Econ. 418	3	3
Hist. 401, Modern Europe..	3	3	Hist. 402, Modern Europe..	3	3
Electives	7	7	Electives	6	6

SENIOR ELECTIVES

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Foreign Language	3	3	Foreign Language	3	3
Pub. Spk. 303	2	2	Pub. Spk. 304	2	2
Edu. 415	2	2	Edu. 416	2	2
Zool. 401	2	(4) 3½	Bact. 310	2	(4) 3½
Eng. 403	3	3	Eng. 404	3	3
Edu. 405	2	2	Edu. 406	2	2
Soc. Sci. 401	2	2	Soc. Sci. 304	2	2
			Horticulture 408	3	(2) 3½

Three years of a foreign language will be required below the Senior year, two of these years' work being in the same language.

DEPARTMENT OF BACTERIOLOGY AND ZOOLOGY

L. L. LEWIS, *Professor*
 R. O. WHITENTON, *Associate Professor*
 C. H. McELROY, *Assistant Professor*
 E. E. HARDEN, *Assistant*
 RUBY LAUDERDALE, *Student Assistant*

The Department of Bacteriology and Zoology occupies quarters on the second floor of the Library Building. The equipment of microscopes, simple and compound; lanterns, microtomes, incubators, etc., is ample for the accommodation of all classes. The department is also well supplied with dissectable models and skeletons as well as charts for both physiology and zoology. The department gives not only the work in bacteriology and zoology required in the science courses, but a large amount of teaching is required in other departments, as in the Schools of Agriculture, Domestic Science, etc. The policy of the Department of Bacteriology and Zoology is to adapt the work to the needs of students coming from other schools of the College. The following work is offered by the department in the regular College courses:

SUBJECTS

Bacteriology

310 General Bacteriology. Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{3}$.

Prerequisite to all other courses in bacteriology except Bact. 303 and 402.

Required: General science, Animal Husbandry.

Elective: Commerce and Marketing, School of Education.

This course covers the general principles of the science and enables the student to understand the importance of bacteria as related to disease, their economy in nature and their relation to the various industries, such as dairying, soil fertility, fermentation, etc.

Text: Hiss and Zinsser; Veterinary Bacteriology, Buchanan.

303 Household Bacteriology. Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{3}$.

Prerequisite: Chem. 101, 102.

Required: Home Economics.

Elective: Science and Literature.

This course is given for the students in home economics and as far as possible is made to apply to the work in which these students are most interested.

Text: Household Bacteriology, Buchanan.

311 Dairy Bacteriology. Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{3}$.

Prerequisite: Bact. 310.

Required: Students in dairying.

Elective: All agricultural students, and Science and Literature
 A study of the bacteriology of milk and of milk products. Spe-

cial attention will be given to sanitation and animal diseases as they may affect the milk supply.

Text: Dairy Bacteriology, Russell and Hastings.

402 Sanitary Science. Class 3 hours. Credit 3.

Prerequisite: None.

Required: Civil Engineering.

Elective: None.

This course is given especially to students in civil engineering. The course deals largely with water supply, sewage disposal and the different methods of treating sewage. Time is given at the beginning of the course to familiarize the student with the general nature and relationship of bacteria to disease.

Text: Bergey on Sanitation; Winslow on Sewage Disposal.

403 Technical Bacteriology. Class 3 hours, laboratory 4 hours. Credit 4½.

Prerequisite: Bact. 310.

Required: Science and Literature.

Elective: School of Education.

This course is a continuation of 310 and deals more particularly with the relation of bacteria to disease processes. Work is offered in the production of vaccines, laboratory diagnosis, etc.

Text: Bouldon, Citron, Simon.

404 Advanced Work in Immunity. Class 3 hours, laboratory 4 hours. Credit 4½.

Prerequisite: Bact. 310 and 403.

Required: Science and Literature.

Elective: Education.

This semester's work completes a year's work in technical bacteriology in which the student is given theoretical and practical training in work along sero-diagnostic and immunological lines. This course is intended to fit a student for taking up original problems in the subject in the capacity of an investigator or in the ever-broadening field of municipal work.

Text: Simon, Emery, Zinsser.

405 Agricultural Bacteriology. Class 2 hours, laboratory 4 hours. Credit 3½.

Prerequisite: Bact. 310.

Elective: Agriculture and Science and Literature.

This course is offered for the benefit of science students and the students of agriculture who may desire to familiarize themselves to some extent with the importance of bacterial activities to certain phases of agricultural work. Some industrial application of bacteriology should be understood by students who have interested themselves in the science.

Physiology

202 Advanced Physiology. Class 3 hours, laboratory 2 hours. Credit 3¾.

Prerequisite: Secondary School physiology and Freshman chemistry.

Required: Home Economics.

Elective: Science and Literature.

Particular attention is given to the physiology of nutrition and to hygiene.

Text: Human Body, Martin.

301 Comparative Physiology. Class 2 hours. Credit 2.

Prerequisite: Vet. Sci. (Anatomy) 201.

Required: Animal Husbandry.

Elective: All agricultural students.

Special attention will be given to human as well as animal physiology. Normal functions of such organs of the animal body as are actively concerned in feeding, including digestion and organs of elimination, as affect nutrition.

Text: Physiology, Patterson.

Zoology**102 Economic Zoology.** Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{3}$.

Required: Home economics.

This course is a general survey of the animal kingdom with emphasis on economic value.

Text: Economic Zoology, Daugherty.

201 General Zoology. Class 3 hours, laboratory 4 hours. Credit $4\frac{1}{3}$.

Required: General science.

Elective: General literature, Education, Commerce and Marketing.

This course is designed to give an outline knowledge of the animal kingdom, as well as of the important biological laws. Representative types of the important phyla will be studied in the laboratory. The economic species and the principles underlying development will be especially emphasized.

Text: College Zoology, Hegner.

207 General Zoology (for Agricultural students). Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{3}$.

Required: All agricultural students.

This course is similar to Zoology 201, but adapted to the needs of the students in agriculture.

210 Vertebrate Zoology. Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{3}$.

Prerequisite: Zool. 201 or equivalent.

Required: General science.

Elective: Education, Commerce and Marketing.

This course is primarily comparative anatomy in the laboratory work, but the lectures will deal with classification, distribution, etc., of the vertebrates with special emphasis on Oklahoma species.

401 General Biology. Class 3 hours, laboratory 2 hours. Credit $3\frac{2}{3}$.

Prerequisite: Zool. 201.

Required: General science.

Elective: General literature, Education, Commerce and Marketing.

This course deals with the problems of variation, inheritance and evolution.

Text: Evolutionary Biology, Dendy.

402 Embryology. Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{3}$.

Prerequisite: Zool. 201 or equivalent.

Required: Veterinary Medicine.

Elective: General science, Education, Commerce and Marketing.

This is a study of the development of vertebrates, using the chick and pig as types.

DEPARTMENT OF BOTANY

CHAS. O. CHAMBERS, *Professor*
C. D. LEARN, *Assistant Professor*

In an agricultural college, botany is a fundamental study. Agriculture has to do chiefly with plants and botany deals with plants in their broadest aspect; their relations to soil, climate and culture. It deals with the origin and distribution of plants in general; the origin and improvement of our cultivated plants; the laws of breeding and selection by which they have been brought to a higher state of perfection.

Plant physiology aims to show the relation of plant life to chemistry and biological laws. Plant pathology acquaints us with the chief diseases which threaten our crops and play havoc in orchard, field and garden.

This department, located on the third floor of Morrill Hall, has classroom and laboratories fairly well equipped to accommodate classes in all lines—microscope, microtome and reagents for classwork, charts and balopticon for lecture room. An extensive herbarium of native Oklahoma species is being constantly increased.

The aim and purpose is to afford:

1. General culture and acquaintance with plant life.
2. A basis for agricultural and horticultural studies.
3. Training for those who expect to teach botany or agriculture in secondary schools.

SUBJECTS

101 General Botany. Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{2}$.

Elective: Education, General Science and Literature.

The principles of plant structure studied from the standpoint of function; an introduction to physiology, genetics and ecology.

Text: College Botany, Gager.

102 General Botany. Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{2}$.

Prerequisite: Bot. 101.

General morphology of the principal natural groups of plants from the standpoint of evolution from lower to higher forms, their structure, habits and relationships; an introduction to systematic botany.

Text: College Botany, Gager.

104 General Botany. Class 3 hours, laboratory 4 hours. Credit $4\frac{1}{2}$.

Required of all agricultural students.

- 206 Systematic Botany.** Class 1 hour, laboratory 6 hours. Credit 3.
Prerequisite: Bot. 101, 102 or 104.
A taxonomic study of flowering plants.
Text: Manual of Botany, Gray (Seventh Edition).
- 303 Genetics.** Class 3 hours. Credit 3.
Prerequisite: Bot. 102 or 104, or Zool. 201.
A study of the principles of variation, selection, heredity, and their application to animal and plant breeding.
Text: Genetics, Castle.
- 304 Plant Physiology.** Class 2 hours, laboratory 2 hours. Credit 2 $\frac{2}{3}$.
Prerequisite: Bot. 101, 102 or 104.
A study of the vital processes in the higher plants.
Text: Plant Physiology, Duggar.
- 305 Pathology.** Class 2 hours, laboratory 4 hours. Credit 3 $\frac{1}{3}$.
A study of fungous diseases, both host and parasite.
Text: Fungous Diseases of Plants, Duggar.
- 401 Advanced Systematic Botany.** Class 1 hour, laboratory 6 hours. Credit 3.
Prerequisite: Bot. 206.
A continuation of 206, with special emphasis on economic groups.
Text: Manual of Botany, Gray (Seventh Edition).
- 410 Teaching of Botany.** Class 1 hour. Credit 1.
For those who expect to teach botany.

DEPARTMENT OF CHEMISTRY

L. CHAS. RAIFORD, *Professor*
P. L. MENAUL, *Assistant Professor*
M. L. WHITSITT, *Instructor*
E. E. HARNDEN, *Assistant*
G. K. DICKSON, *Graduate Assistant*
I. A. NELSON, *Graduate Assistant*

The courses of instruction offered by the Department of Chemistry have been arranged to meet—

1. The special requirements of students pursuing work in the several schools of the College.
2. The needs of those who wish to enter upon careers as teachers of chemistry in secondary schools.
3. The requirements of students who wish a knowledge of the methods of work and application of the science on account of its relationship to their major work in other subjects, as, for example, agriculture, home economics, dairying, etc.
4. The needs of those who wish, after graduation, to do work leading to the master's degree here, or to prepare themselves for positions as analytical chemists.

The department is located in the Chemistry Building, which consists of two stories, basement and attic. One of the large, bright rooms on the first floor is fitted up for lectures and recitations. There is a lecture table conveniently equipped and arranged for demonstration and observation. The supply of apparatus and chemicals is quite extensive, and the student's interest in the subject is first aroused, then encouraged and stimulated. The lecture room has a seating capacity of over one hundred. The remainder of the first floor is taken up with laboratories and balance rooms for quantitative work.

On the second floor there are three laboratories for introductory work. Each of these is equipped for a total of seventy-two workers, and will accommodate twenty-four students at a time; a central storeroom opens into all three. During the working period there is an instructor in each laboratory and an advanced student in the store room. This arrangement has proved very efficient for laboratory instruction. All desks are so equipped with bottles of reagents and with apparatus as to minimize the loss of time incident to a student leaving his desk for these articles; and even in the case of more expensive instruments, materials and models for advanced students, every effort is made to keep on hand a supply that will meet all reasonable demands and prevent the serious loss of time and enthusiasm on the part of the student.

In the attic there are the general store rooms for apparatus and chemicals. These communicate with the supply and special store rooms and laboratories below by means of an elevator.

The building is heated by steam and lighted by electricity, and each laboratory desk is supplied with both gas and water.

In general it may be said that it is the policy of the department to maintain at all times those conditions which promote orderly and serious work, and which cultivate a pleasurable interest in scientific experimentation.

SUBJECTS

101 General Inorganic Chemistry. Class 3 hours, laboratory 4 hours. Credit $4\frac{1}{2}$.

Prerequisite: Ele. Physics.

Required of all Freshmen, and prerequisite for all other courses in the department.

An elementary study of the general principles of the science as exemplified in the preparation, examination of the properties, and consideration of the uses of the more important non-metals and their

simple compounds. The derivation of formulas, the construction of equations, and the calculations based on them, are especially emphasized. Lectures, written exercises and individual laboratory work.

102 General Inorganic Chemistry. Class 2 hours, laboratory 4 hours. Credit 3½.

Prerequisite: Chem. 101 or its equivalent.

Required of all Freshmen.

A continuation of the work in Course 101, dealing with the metals and their compounds.

201 Qualitative Analysis. Class 2 hours, laboratory 6 hours. Credit 4

Prerequisite: Chem. 102.

Required of Sophomores in the courses in general and exact science in the School of Science and Literature, and in the course in chemical engineering.

A detailed consideration of such principles of general chemistry as solution, ionization, chemical equilibrium, precipitation, etc., with their application to the separation and recognition of the more important positive and negative ions, both in pure substances and in mixtures. Lectures, written exercises, quizzes, and laboratory work.

205 Elementary Organic Chemistry. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: Chem. 102.

Required of Sophomores in the Schools of Agriculture and Home Economics.

An introductory course dealing with the sources, methods of preparation, properties, and classification of the chief groups of organic compounds of the aliphatic series; their uses and their relationships to the fats and carbohydrates. Lectures, written exercises and laboratory work.

206 Quantitative Agricultural Chemistry. Class 2 hours, laboratory 6 hours. Credit 4.

Prerequisite: Chem. 201, (or 207) 205.

Required of Sophomores in the School of Agriculture.

An elementary study of the simpler quantitative methods, involving the care and use of the analytical balance, exercises in the gravimetric and volumetric analysis of pure substances of known composition, the preparation and standardization of volumetric solutions, constant practice with equations representing the reactions employed, and with the calculations based on them. The composition of the atmosphere and its relation to plant growth, the analysis of soils, fertilizers and plant products. Lectures, reports, written exercises and laboratory work.

207 Qualitative Analysis. Class 1 hour, laboratory 3 hours. Credit 2

Prerequisite: Chem. 102.

Required of Sophomores in the Schools of Agriculture and Home Economics.

A briefer course dealing with the same subject matter and employing the methods indicated under 201.

208 Elementary Food Chemistry. Class 1 hour, laboratory 6 hours. Credit 3.

Prerequisite: Chem. 205, 207.

Required of Sophomores in the School of Home Economics.

A course dealing with the quantitative methods employed in the

study of the materials immediately related to daily life. Air, water and the more common food materials are made the subject of numerous experiments to illustrate their composition and properties. The estimation of chemical compounds in food products is especially emphasized.

210 General Quantitative Analysis. Class 2 hours, laboratory 6 hours. Credit 4.

Prerequisite: Chem. 201.

Required of Sophomores in the courses in general and exact science in the School of Science and Literature, and in the course in chemical engineering.

A general study of the fundamental analytical methods, both gravimetric and volumetric, but without reference to any specific industry. Methods as in 206.

304 Advanced Quantitative Analysis. Class 2 hours, laboratory 6 hours. Credit 4.

Prerequisite: Quantitative analysis and organic chemistry.

Required of Juniors in the courses in general and exact science in the School of Science and Literature, and in the course in chemical engineering. Offered to others prepared to take the work.

A selected series of determinations designed to familiarize the student with accuracy in analytical work, and to furnish him with suitable methods for a variety of fundamental operations required in any advanced work in chemistry.

305 General Organic Chemistry. Class 3 hours, laboratory 7 hours. Credit $5\frac{1}{2}$.

Prerequisite: Chem. 201 or its equivalent. Quantitative work is desirable, though not absolutely essential.

Required of Juniors in the courses in general and exact science in the School of Science and Literature, and in the course in chemical engineering.

A systematic study of the general principles of organic chemistry as illustrated by the discussion and preparation of the more important class types of both the aliphatic and aromatic series of compounds. Special attention is drawn to those compounds that have commercial importance as well as purely scientific interest, thus enabling the student to see the relationship between this science and other fields of knowledge.

310 Food Analysis. Class 1 hour, laboratory 4 hours. Credit $2\frac{1}{2}$.

Prerequisite: Organic chemistry and quantitative analysis.

Elective for Juniors and Seniors in the School of Science and Literature, and offered to all who are prepared to take the work.

The qualitative and quantitative analysis of food materials; the detection and estimation of impurities, adulterations, coloring matter, etc., in accordance with the methods employed in the State and Federal Government service.

311-312 Advanced Organic Chemistry. Class 3 hours, laboratory 4 hours. Credit $4\frac{1}{2}$.

Prerequisite: Organic chemistry and quantitative analysis.

Elective for Seniors in the School of Science and Literature, and offered to all who are prepared to take the work.

A course arranged for those who desire a more extended knowledge of organic chemistry than is provided in the course described above. The classwork involves the discussion of the chemical beha-

vior and the characteristic reactions of the different classes of organic compounds, the synthetic methods by which they can be prepared, and the methods by which one class can be converted into another. The laboratory work will include the preparation and analysis of selected compounds.

313-314 Physiological Chemistry. Class 1 hour, laboratory 4 hours. Credit $2\frac{1}{2}$.

Prerequisite: Analytical and organic chemistry.

Elective for Juniors and Seniors in the Schools of Science and Literature and of Home Economics, and offered to all students prepared to take the work.

A study of the synthetic and analytical reactions that accompany the physiological changes in animals and plants. The chemical properties of food and body substances and their general and specific characteristics; the behavior of enzymes and their functions; the changes that take place in digestion, assimilation and elimination are among the topics considered.

321 Geology. Class 2 hours. Credit 2.

Prerequisite: General chemistry.

Required of Sophomores in the course in general literature and Seniors in the course in exact science in the School of Science and Literature, and of Juniors in the Department of Civil Engineering.

An introductory course including an elementary study of constructive and destructive forces, the origin of the soil, the materials of the earth's crust and the manner of their occurrence, the chemical and mechanical changes brought about by geological agencies, and the surface features to which they give rise.

322 Determinative Mineralogy and Blowpipe Analysis. Class 1 hour, laboratory 4 hours. Credit $2\frac{1}{2}$.

Prerequisite: Chem. 201, 207.

Required of Juniors in the Department of Civil Engineering.

A study of the physical properties of typical mineral species, and of the dry reactions of the elements, with their application to the identification of unknown minerals.

323-324 Petroleum Technology. Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{2}$.

Prerequisite: General chemistry. Organic and analytical chemistry are highly desirable. Students must consult the instructor before registering for this course.

Required of Seniors in chemical engineering, and offered to others prepared to follow the work.

A study of the origin, occurrence and physical properties of petroleum, and of the laboratory methods for the estimation of the value of crude oil and the various products obtained by refining it, including specific gravity determinations, distillation methods, and special tests for acidity, sulphur, paraffin, asphalt, etc.; a discussion of the gas industry, and laboratory work in gas analysis.

401 Advanced Inorganic Chemistry. Class 3 hours, laboratory 6 hours. Credit 5.

Prerequisite: General chemistry and two semesters of quantitative analytical work.

Required of Seniors in the course in exact science in the School of Science and Literature, and elective for others prepared to take the work.

A critical review of the reactions and theories studied in the elementary courses. Laboratory practice in the preparation of pure compounds from crude materials.

402 Physical Chemistry. Class 2 hours, laboratory 6 hours. Credit 4

Prerequisite: Organic chemistry and quantitative analysis.

Required of Seniors in the course in exact science, and offered to all students prepared to take the work.

A discussion of the laws of gases, the kinetic theory, the phase rule, optical activity, and related topics; with laboratory practice in the determination of vapor densities, molecular weights by the freezing and boiling point methods, calculation of the degree of ionization, estimation of optical activity.

404 Special Methods in Quantitative Analysis. Class 1 hour, laboratory 4 hours. Credit $2\frac{1}{3}$.

Prerequisite: Organic chemistry and quantitative analysis.

Elective for Juniors and Seniors in the School of Science and Literature, and offered to all students prepared to take the work.

The technical methods employed in the analysis of such raw materials and industrial products as water, gas, iron and steel, special minerals, fuels, oils, etc.

405-406 Industrial Chemistry. Class 3 hours, laboratory 9 hours. Credit 6.

Prerequisite: Chem. 304 and 305.

Required of Seniors in chemical engineering, and offered to all having the necessary preparation.

Lectures, recitations and conferences dealing with the applications of chemistry to the problems of manufacture, with laboratory practice in the analyses of both raw materials and factory products.

420 Teaching of Chemistry. Class 1 hour. Credit 1.

Required of Seniors in the course in exact science in the School of Science and Literature, and elective for all others who have a sufficient knowledge of the subject matter under discussion.

A series of conferences in which the methods and procedure in teaching general chemistry will be discussed in detail. Selections of subject matter for classwork and laboratory exercises, apparatus and equipment for class demonstrations, relation of class and laboratory work, choice of text and reference books, etc.

421-422 Master's Thesis. Conference 1 hour, laboratory 10 or 20 hours a week. Credit in accordance with the amount of work done.

The work here indicated is of the nature of investigation, and is chiefly experimental, with the necessary reading and conferences. It is intended to familiarize the student with the methods used in independent work, and with an appreciation of the aims and objects of work in chemistry.

DEPARTMENT OF DRAWING AND ART

ANNIE SMITH-NINMAN, *Professor*
MABLE HUEY-COWGILL, *Assistant*

Fine arts are the realm of originality even though the function of imitation and scientific thinking in them is recognizable. In general the aim of art training should be to develop in the mind of the student power to see relations and to represent them truthfully; to develop facility in expression; to establish standards of excellence of form, color and design, and to enable him to construct in accordance with standards.

Art courses herein offered have been planned to articulate with social interests; to correlate with coordinate studies, and to anticipate the development of the aesthetic influence that art bears to life.

Completed projects in artwork that meet a certain standard of excellence shall be placed by students at the disposal of the institution for a period of one year.

Full equipment of art supplies must be purchased at beginning of each semester.

SUBJECTS

101 Practice 4 hours. Credit 1½.

Freehand drawing, in accordance with fundamental principles of perspective and laws governing correct drawing, composition and color harmonies. Work includes the representation from observation of such forms as objects and nature motifs, and involve the use of pencil and charcoal.

102 Practice 4 hours. Credit 1½.

Freehand drawing from object and nature motifs continued, introducing use of crayons, water colors and charcoal.

104 Practice 4 hours. Credit 1½.

Prerequisite: Draw. 101.

Theory and practice of design, principles in the expression of form and color ideas, including various kinds of construction arrangement and decoration.

105 Industrial Art Drawing. Practice 4 hours. Credit 1½.

A course of instruction required of students enrolled in home economics. To teach drawing in accordance with fundamental principles of perspective and laws governing correct drawing, composition and color harmonies. Work includes representation of objects, articles of furniture, interior and exterior views of buildings. Lesson unities are presented in direct application to house planning projects.

106 Constructive Art Application. Practice 4 hours. Credit $1\frac{1}{3}$.

Required of students enrolled in home economics.

To teach theory and practice of design in the expression of form and color ideas, including various kinds of constructive arrangement and decoration.

The following courses in art instruction are offered as electives to students in all College departments:

203 Elementary Drawing and Painting. Practice 4 hours. Credit $1\frac{1}{3}$.

Prerequisite: Draw. 11 and 12, or equivalent work in drawing.

To teach lines and tone modeling in representation of still life forms and nature motifs, plant and landscape.

204 Elementary Drawing and Painting. Practice 4 hours. Credit $1\frac{1}{3}$.

Prerequisite: Draw. 11 and 12, or equivalent work in drawing.

Continued, to teach different use of mediums and art of representation in composition.

208 History of Painting. Practice 4 hours. Credit $1\frac{1}{3}$.

Prerequisite: Draw. 11 and 12, or equivalent work in drawing.

A lecture and reading course relating study of development of art with an appreciation of artists.

307 Freehand Lettering. Class 1 hour. Credit $\frac{1}{3}$.

To teach poster, exhibit and title card layouts in arrangement and composition, and pen and color rendering.

308 Perspective Drawing. Class 1 hour. Credit $\frac{1}{3}$.

To teach elementary principles of perspective, as applied to free-hand drawing in the representation of spherical, cylindrical and rectilinear objects and exterior and interior views of buildings.

309 Poster Illustration. Class 1 hour. Credit $\frac{1}{3}$.

To teach color application in development of commercial, pictorial and poster illustrations.

310 Commercial Art. Class 1 hour. Credit $\frac{1}{3}$.

Embodying drawing in line and tone modeling; freehand lettering and its application; pen and ink rendering and use of show-card color mediums; poster art from poster art motifs; object, nature and life.

401 Advanced Drawing and Painting. Class 1 hour. Credit $\frac{1}{3}$.

To teach work in drawing and water color painting from observation of object, and nature motifs, giving practice in different phases of art representation; realistic, pictorial and decorative.

402 Advanced Painting. Class 1 hour. Credit $\frac{1}{3}$.

To teach water color and oil painting in representation of life, nature and object motifs.

403 Artcraft. Class 1 hour. Credit $\frac{1}{3}$.

To teach elementary work in cardboard construction, bookmaking, bookbinding, and application of design.

404 Artcraft. Class 1 hour. Credit $\frac{1}{3}$.

To teach the embodiment of structural design, including projects in textile-weaving, basketmaking, leather construction, and applied color.

405 Clay Modeling and Pottery. Class 1 hour. Credit $\frac{1}{3}$.

To teach the study of form and construction with clay as the medium of expression. Pottery comprises the making of objects such as tiles, bowls, vases, jars, and other shapes. Modeling involves representation in concrete from observation of cast and nature motifs.

406 Clay Modeling. Class 1 hour. Credit $\frac{1}{3}$.

Continued, involving the development of original projects in pottery and modeling.

408 Art Appreciation. Class 1 hour. Credit $\frac{1}{3}$.

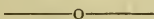
A lecture and reading course relating knowledge and appreciation of art to life. Course includes study of paintings as a source of pleasure in the home and civic building.

409 Porcelain Decoration. Class 1 hour. Credit $\frac{1}{3}$.

Relating fundamental principles of design and color with technique of china decoration.

410 Porcelain Painting. Class 1 hour. Credit $\frac{1}{3}$.

Advanced work in ceramics.

**DEPARTMENT OF ENGLISH**

N. W. ROCKEY, *Professor*
HOMER HALL, *Instructor*
FEARN HAMILTON, *Instructor*

A number of improvements have been made recently which enable the Agricultural and Mechanical College to keep pace with the constantly increasing attention that is being paid to English in other institutions. New courses have been added to meet the special needs of students, and a very wide selection of courses is now made possible. Constant additions of books for reference and supplementary reading are provided by the library.

The aim of the department is two-fold: (1) To create such a love in the student for the best literature that he shall continue to read and enjoy it after his school days are over; (2) to teach the student to express himself clearly and forcibly in writing and speaking.

SUBJECTS**101, 102 College.** Class 3 hours. Credit 3.

Prerequisite: Preparatory English.

This course consists principally of the study and practice of the principles of composition. A thorough knowledge of the principles of grammar is essential. Frequent themes of various nature are re-

quired and a study of classics is introduced. Emphasis is placed upon oral composition and individual conference and correction. Students are required to attain a high standard of self-expression. All students must have access to an unabridged dictionary and are urged to possess a good standard dictionary.

201 Advanced Composition. Class 2 hours. Credit 2.

Prerequisite: 101, 102.

An advanced course in argumentative and expository types of writing, supplemented by a study of examples taken from literature

202 Advanced Composition. Class 2 hours. Credit 2.

Prerequisite: 101, 102.

An advanced course in descriptive narrative types of writing, supplemented by a study of examples taken from literature.

203 News Writing. Class 2 hours. Credit 2.

Prerequisite: 101, 102.

A study of the elements of news-writing and style form the basis of the work. Proper attention is given to writing leads, structure of news stories, reporting and gathering of news, interviewing, reporting speeches, and other forms of elementary journalism.

204 Magazine and Editorial Writing. Class 2 hours. Credit 2.

Prerequisite: 101, 102, 203.

This course takes up the problem of turning scientific and technical information into practical articles for publication in magazines. Practical work in editing and proofreading.

205, 206 Current Literature. Class 1 hour. Credit 1.

Prerequisite: 101, 102.

A course offered as an aid to more intelligent magazine reading and to stimulate an interest in the best current literature.

Text: Current magazines and books.

207, 208 English Literature. Class 3 hours. Credit 3.

Prerequisite: 101, 102.

A general survey. First semester work extends to the early Romantic Movement; second semester work, from Wordsworth to Stevenson. The principal study is of the literature itself, but enough attention is given to the life of the author and the times in which he lived to enable the student to appreciate his work and influence. It is an introduction to literature and literary criticism, and, although it is elective to advanced students, those electing it early in their course will be enabled to pursue the more advanced courses with greater profit and success.

209 Technical Writing. Class 2 hours. Credit 2.

Prerequisite: 101, 102.

This is an advanced course in composition adapted to the interests and needs of engineering students.

301, 302 Feature and Publicity Writing. Class 2 hours. Credit 2.

Prerequisite: 203, 204.

An advanced course in writing for actual publication. Publicity work is undertaken in connection with the course. Membership is limited and subject to the approval of the instructor.

***303, 304 American Literature.** Class 2 hours. Credit 2.

Prerequisite: 101, 102.

This course covers a history of American literature in a more intensive manner than is possible in secondary schools. Attention will be given to literary periods and to the writings of the lesser as well as the greater American authors. Some comparison is made with English literature. Poetry occupies the first semester, prose the second. Not offered this year.

***305, 306 English Language.** Class 2 hours. Credit 2.

Prerequisite: 101, 102.

A college course in the structure of language, and aimed to advance and deepen the student's knowledge of grammar. Some attention is given to the historical development of forms and to word study. Offered this year.

307, 308 Bible Literature. Class 2 hours. Credit 2.

Prerequisite: 101, 102.

A literary study of the Bible.

401 Carlyle and Ruskin. Class 3 hours. Credit 3.

Prerequisite: Eng. 101, 102.

The assignment in this work varies from year to year. This year the following will be studied: Carlyle's "Sartor Resartus"; prose writings of other essayists, including Ruskin. Although not a prerequisite, students should have had Eng. 207 and 208.

402 Victorian Poets. Class 3 hours. Credit 3.

Prerequisite: Eng. 101, 102.

This course is designed to give students a comparatively thorough knowledge of one of the master poets of the Nineteenth Century. This does not exclude the consideration of other authors as an aid to the study of the author chosen. This year Tennyson has been selected for intensive study. Although not a prerequisite, students should have had Eng. 207, 208.

403 Romantic Movement in English Poetry. Class 3 hours. Credit 3.

Prerequisite: Eng. 101, 102.

About one-fourth of the time is devoted to Wordsworth, the remainder to Coleridge, Byron, Shelley and Keats. This course is supplemented by lectures and collateral readings, tracing the rise and development of the Romantic Movement. The work is based upon the complete work of each of the authors studied. By clubbing together the students have purchased the five volumes at a reasonable rate. Although not a prerequisite, students should have had Eng. 207, 208.

404 Shakespeare and the Drama. Class 3 hours. Credit 3.

Prerequisite: Eng. 101, 102.

A study is made of the rise and development of the English drama, of the Elizabethan stage, and the conditions under which the great dramatist wrote. Specimens of early English plays and Shakespeare's plays are reported upon, and some attention is given to the later drama.

***405, 406 The Novel.** Class 2 hours. Credit 2.

Prerequisite: Eng. 101, 102.

In this course the development of the English novel into definiteness of form and purpose receives due emphasis, and the writers studied are treated as representatives of the life, the thought and literary movements of the times in which they lived. The earlier novels occupy the first semester, the later the second. Offered this year.

***407, 408 Masterpieces.** Class 2 hours. Credit 2.

Prerequisite: Eng. 101, 102.

An intensive study of masterpieces to be selected by the instructor. This course serves those who wish to review and supplement their reading for high school teaching, as well as those who wish to increase their knowledge of great masterpieces. Not offered this year.

*Only two of the following courses are offered in each year: Courses 303-304, 305-306, 405-406, 407-408. Courses 303-304 and 305-306 are offered in alternate years. Courses 405-406 and 407-408 are offered in alternate years.

DEPARTMENT OF ENTOMOLOGY

C. E. SANBORN, *Professor*

H. R. PAINTER, *Instructor*

OTIS WADE, *Instructor*

LOTTIE ALTIZER, *Student Assistant*

The courses of instruction given by the Department of Entomology are arranged to meet—

1. The requirements of agricultural students who desire to have practical information relative to the control of injurious insects of the farm, orchard and garden.

2. Requirements of students who desire to obtain a broader scope of entomology than above mentioned, for the purpose of demonstration work.

3. Requirements of students who are preparing to teach entomology in public schools.

4. Requirements of those who desire to specialize in entomology for the purpose of preparing themselves as nursery and orchard inspectors or for positions in other colleges and universities.

Work can be taken in this department leading to a master's degree.

The Experiment Station side of entomology is a closely allied division, and much of the practical side of the work taken by students can be gained through frequent assistance in the Experiment Station work of the department.

In addition to the regular well equipped class laboratory, there is a station laboratory located in the Apiary Building to which

students have frequent access for the purpose of becoming familiar in a most practical way with all lines of work in entomology.

SUBJECTS

202 General Entomology. Class 3 hours, field and laboratory 2 hours. Credit $3\frac{2}{3}$.

A systematic study of insects and a study of their distribution, habits and methods of development with a view of ascertaining methods of control.

Text: Sanderson.

204 Sanitary Entomology. Class 2 hours, field and laboratory 3 hours. Credit 3.

A brief, systematic study of insects and a study of their life history, and the habits of forms which disseminate disease and infest the household.

Text: Herrick.

303 Horticultural Entomology. Class 2 hours, field and laboratory 4 hours. Credit $3\frac{1}{3}$.

Habits and distribution of orchard and garden insects, studied in such a way as to portray the most practical methods of controlling them.

Texts: By assignment.

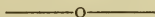
306 Apiculture. Class 3 hours, field and laboratory 2 hours. Credit $3\frac{2}{3}$.

A general course in beekeeping.

Text: Root.

403 Advanced Entomology. Class, field and laboratory work by assignment.

Subjects given by assignment. (Practically all courses in advanced entomology will be given by assignment. This refers particularly to graduate students.)



DEPARTMENT OF FOREIGN LANGUAGES

GUSTAV F. BROEMEL, *Professor*

ALMON AI ARNOLD, *Instructor*

H. C. HADDOX, *Instructor*

The College offers a three-year course in modern and ancient languages.

The Secondary School of Oklahoma A. and M. College requires one year of some foreign language of all students. Students who are preparing for the School of Engineering must take two years of a foreign language.

The student is allowed to elect that course for which he is prepared.

As to which courses are required and which elective, see the courses of study outlined for each school.

SUBJECTS

French

101 Elementary Course. Class 3 hours. Credit 3.

Essentials of French grammar; the more common irregular verbs. Careful training in pronunciation.

Text: Fraser and Squair's Shorter Course.

102 Elementary Course. Class 3 hours. Credit 3.

Prerequisite: Fr. 101.

Continuation of Course 101.

Reading of about three hundred pages of modern prose. Emphasis on irregular verbs, idioms and translation of easy French at sight.

Text: Fraser and Squair's Shorter Course; Francois and Giraud's Simple French; Labiche's *Le Voyage de Monsieur Perichon*.

201 Intermediate Course. Class 3 hours. Credit 3.

Prerequisite: Fr. 102.

Advanced prose composition, reading of standard authors.

Text: Francois' Advanced Prose Composition; Merimee's *Colomba*; Beaumarchais' *Le Barbier de Seville*. Collateral readings.

202 Intermediate Course. Class 3 hours. Credit 3.

Prerequisite: Fr. 201.

Continuation of Course 201.

Text: Francois' Advanced French Composition; Victor Hugo's *Les Miserables*; Loti's *Le Pecheur d'Islande*.

203 Scientific French. Class 2 hours. Credit 2.

Prerequisite: Fr. 102.

Text: Bowen's Elementary Scientific Reader.

204 Scientific French. Class 2 hours. Credit 2.

Continuation of Course 203.

Text: French scientific magazines.

301 Advanced Course. Class 3 hours. Credit 3.

Prerequisite: Fr. 202.

A careful study of the tragedies of Racine and Corneille. Collateral readings.

Text: Corneille's *Le Cid*, *Horange*, etc.

302 Advanced Course. Class 3 hours. Credit 3.

Prerequisite: Fr. 301.

A study of the drama of the Eighteenth Century. Collateral readings.

Text: Maivaux's Comedies; Voltaire's *Zaire*.

Spanish

101 Elementary Course. Class 3 hours. Credit 3.

Mastery of the forms of grammar; careful treatment of the pronunciation, emphasis on the most important irregular verbs.

Text: A Brief Spanish Grammar, Ingraham-Edgren.

- 102 Elementary Course.** Class 3 hours. Credit 3.
Prerequisite: Course 101.
Emphasis on irregular verbs and most common idioms. Reading of about three hundred pages of modern prose.
Text: Hill's Spanish Tales.
- 201 Intermediate Course.** Class 3 hours. Credit 3.
Prerequisite: Sp. 102.
Advanced prose composition; reading of standard authors.
Text: Humphrey's Spanish Prose Composition; Johnson's Cuentos; Harzenbush's La Coja y El Encogido.
- 202 Intermediate Course.** Class 3 hours. Credit 3.
Prerequisite: Sp. 201.
Continuation of Course 201.
Text: Harrison's Spanish Commercial Reader; Harrison's Spanish Correspondence; Spanish magazines and reviews.
- 301 Advanced Course.** Class 3 hours. Credit 3.
Prerequisite: Sp. 202.
Letter-writing and conversation.
Texts vary.
- 302 Advanced Course.** Class 3 hours. Credit 3.
Prerequisite: Sp. 301.
A continuation of Course 301.
Texts vary.

Latin

The Department of Foreign Languages meets the required Latin demands of law schools, medical schools, and the needs of prospective teachers of Latin in high schools. Upon petition and evidence of proper preparation, any desired Latin course will be given.

- 101 Caesar.** Class 3 hours. Credit 3.
Prerequisite: One year of Latin.
Three books of the Gallic War are read. Methods of translation are carefully taught until the student reaches the point where diligence alone will give mastery. Constant drills in forms, syntax and pronunciation.
Text: Any text in Caesar.
- 102 Caesar.** Class 3 hours. Credit 3.
Prerequisite: Latin 101.
Two more books of the Gallic War are read. Drill in sight-reading. One hour a week is devoted to prose composition.
Text: Composition, by Allen and Phillips.
- 201 Cicero's Letters and Orations.** Class 3 hours. Credit 3.
Prerequisite: Latin 102.
A reading course with special attention to the life and personality of Cicero.

202 Cicero's Essays. Class 3 hours. Credit 3.

Prerequisite: Latin 201.

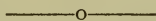
A study of the life, personality and philosophy of Cicero. Study of Cicero's style and prose compositions.

Text: Cicero's *De Senectute*; *De Amicitia*.**303 Virgil's Aeneid.** Class 3 hours. Credit 3.

Three books will be read. This will include a study of Latin poetry, especially the scansion of dactylic hexameter.

304 Horace. Class 3 hours. Credit 3.

A continuation of Latin poetry. The Odes from Horace will be used as a basis.

403 Tacitus—Germania and Agricola. Class 2 hours, composition 1 hour. Credit 3.**404 Livy (Books 21 and 22).** Class 2 hours, composition 1 hour. Credit 3.**DEPARTMENT OF HISTORY**S. A. MARONEY, *Professor*

The study of history has two distinct but not incompatible aims. One of these is personal culture, the other is practical vocational value. Each of these standards is sought in both method and matter in different proportions to suit the various courses of the Agricultural and Mechanical College. The number of classes offered is limited by the technological character of the curricula. The newer conceptions of history prevail which treat the subject more for thought than for memory of facts, minimize the details of wars, and stress ethical, political and industrial features. Special adaptations are made to reinforce the College work in agriculture and home economics. The College library contains many valuable sets of reference works, which are being added to from time to time.

The department has charge of history in the Secondary School. For courses in Hist. 21, 22, 31, 32 and 41 see Secondary School.

SUBJECTS**201, 202 History of the United States.** Each 3 hours class. Credit 3.

Prerequisite: Am. Hist. 31 and 32 (Government) in Secondary School, or equivalent.

Required in general literature course of School of Science and Literature; History and literature course in School of Education.

201 to presidency of Andrew Jackson. Colonial period as preparatory to nationality. Steps toward union, the dominant theme in the Revolution, critical period, and adoption and operation of the

Constitution. Social, industrial and educational features given due but secondary consideration.

202 Continuation of 201 to date. Political history basic. Financial and social phases not slighted. Enlargement of governmental activities, state and national, emphasized as characteristics of recent years. Aims to give insight into present-day problems. Current history utilized to give reality to past and to keep pace with the present.

301, 302 History of England. Each, class 3 hours. Credit 3.

Required general literature course in School of Science and Literature; History and literary course in School of Education.

301 to the Stuarts. Rise of English national form. Anglo-Saxon institutions, advancement in democracy as roots of modern institutions.

302 British colonial, naval and commercial growth. Recent British social legislation. Church. Background of English literature. The War of Nations.

Students majoring in English may take 301-302 in Sophomore year and 201-202 in Junior year.

306 Industrial History of the United States. Class 3 hours. Credit 3.

Required: Junior Home Economics; exact science and general literature.

Elective: School of Education, et al.

Economic side of national growth emphasized rather than political. History of different industries, periods and movements, leading to survey of conditions of today.

Adaptations to Home Economics.

401, 402 Modern Europe. Each, class 3 hours. Credit 3.

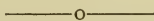
Prerequisite: Anc. Hist. 21 and Mod. Hist. 22.

Should not be taken before 201, 202, 301, 302. Department may grant exception in part.

Required: General literature, School of Science and Literature; history and literature course, School of Education.

401 from 1500 to 1815. Sketch some earlier large events. The rise of the nations, the papacy, feudalism, renaissance and reformation, French Revolution.

402 continuation of 401 from 1815 to present. Political and social development. Traces complex conditions leading to War of Nations. Deals with large questions of nationalism, democracy and internationalism.



DEPARTMENT OF MATHEMATICS

CARL GUNDERSON, *Professor*

R. E. HARTSOCK, *Associate Professor*

JOHN H. ANDREWS, *Assistant Professor*

Work in college mathematics is required of all students in the School of Engineering and in the divisions of general and exact science of the School of Science and Literature.

Courses 105, 108, 207, 208 are required of engineers, 205 of civil engineers, 105, 108 and 204 in general science, 105, 108, 204, 207, 208, 301 and 302 in exact science.

The other courses are elective or optional.

SUBJECTS

105 College Algebra. Class 4 hours. Credit 4.

Prerequisite: High school algebra and plane geometry.

Variables and functions; binomial theorem; progressions; complex numbers; logarithms; limits; permutations and combinations.

Text: Rietz and Crathorne.

108 Plane Trigonometry. Class 3 hours. Credit 3.

Prerequisite: Plane Geom. and Math. 105.

The development and use of trigonometric functions; relations between the functions; logarithms; solution of triangles; application to practical problems throughout the course.

Text: Ashton and Marsh.

207 Analytical Geometry and Calculus. Class 5 hours. Credit 5.

Prerequisite: Math. 108 and Solid Geom.

Cartesian and polar coordinates; equations and properties of straight lines and curves; introduction to analytical geometry of three dimensions; introduction to calculus; limits; infinitesimals; rates; maxima and minima; partial differentiation.

Text: Brief Course in Analytic Geometry, Tanner and Allen; Calculus, March and Wolff.

208 Calculus. Class 5 hours. Credit 5.

Prerequisite: Math. 207.

Change in variable; integration; application of integration; multiple integrals; curvature; properties of curves; infinite series; Taylor's theorem, hyperbolic functions, indeterminate forms.

Text: Calculus, March and Wolff.

204 Astronomy. Class 2 hours. Credit 2.

Prerequisite: High School Alg. and Geom.

The celestial sphere; reference lines and astronomical measurements; the solar system; laws of motion; evolution; stars; comets; nebulae; structure of the universe.

205 Spherical Trigonometry. Class 1 hour. Credit 1.

Prerequisite: Solid Geom. and Math. 108.

Right and quadrantal triangles; oblique triangles.

Text: Ashton and Marsh.

301 Differential Equations. Class 3 hours. Credit 3.

Prerequisite: Math. 208.

Solution of differential equations involving two variables.

Text: Murray.

302 Differential Equations. Class 3 hours. Credit 3.

Prerequisite: Math. 301.

Continuation of Math. 301; ordinary differential equations with more than two variables; partial differential equations.

Text: Murray.

DEPARTMENT OF PHYSICS

J. GARRETT KEMP, *Professor*
E. W. SCHUHMAN, *Instructor*

Physics is the basic science which includes the fundamental laws and principles involved in all physical changes. The courses which follow give both a theoretical and practical treatment of the subject. Instruction is based on the material contained in carefully selected textbooks. This is supplemented by lectures illustrated by demonstrations and by lantern slides. The purpose is to give a training in exact reasoning, and a knowledge of principles that will aid in the solution of both scientific problems and those encountered in everyday life.

The laboratory work gives the student an opportunity to test the principal laws of the science. Special attention has been given to equipping the laboratory with modern apparatus which will give consistent experimental results. This work is carefully coordinated with the work of the classroom, and should enable the student to acquire skill in the manipulation and care of delicate apparatus.

The lecture room is provided with terraced seats which permit the students to see the demonstrations performed on the lecture table. It is equipped with a combination lantern slide and opaque projectoscope which is used in illustrated lectures. The laboratory is well arranged for work, and the equipment provided is of such a nature that it meets the requirements of the different courses.

SUBJECTS

103 Physics—Mechanics, Heat and Sound. Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{3}$.

Required of all students in home economics of the Freshman class.

Text: Kimball's College Physics.

105 General Physics—Mechanics, Heat and Sound. Class 3 hours, laboratory 2 hours. Credit $3\frac{1}{3}$. (Non-mathematical.)

This course consists of two demonstration lectures in which lantern slides and projections are used, one recitation, and one laboratory exercise per week. This course and the following, Physics 106, is suitable for students in the Schools of Agriculture, Commerce and Marketing, Education, and those who wish to study the subject for its practical training in the scientific method (the basis of all efficiency developments), and for aesthetic purposes.

Text: Kimball's College Physics, Revised Edition.

- 106 General Physics—Magnetism, Electricity and Light.** Class 3 hours, laboratory 2 hours. Credit 3½.
Prerequisite: Physics 105, or the equivalent.
This course is the continuation of Physics 105.
Text: Kimball's College Physics, Revised Edition.
- 201 Engineering Physics—Mechanics, Heat and Sound.** Class 4 hours, laboratory 3 hours. Credit 5.
Prerequisite: College Alg. and Trig.
Required of all students in the School of Engineering of the Sophomore class.
Text: College Physics, Reed and Guthe.
- 202 Engineering Physics—Magnetism, Electricity and Light.** Class 4 hours, laboratory 3 hours. Credit 5.
Prerequisite: Physics 201, or the equivalent.
Required of all students in the School of Engineering of the Sophomore class.
This course is the continuation of Engineering Physics 201.
Text: College Physics, Reed and Guthe.
- 203 General Physics—Mechanics, Heat and Sound.** Class 3 hours, laboratory 3 hours. Credit 4.
Prerequisite: College Alg. and Trig.
Required of all students in architecture and the School of Science and Literature of the Sophomore class.
Text: College Physics, Reed and Guthe.
- 204 General Physics—Magnetism, Electricity and Light.** Class 3 hours, laboratory 3 hours. Credit 4.
Prerequisite: Physics 203, or the equivalent.
This course is the continuation of General Physics 203, and required of all students in the School of Science and Literature of the Sophomore class.
Text: College Physics, Reed and Guthe.
- 301 Electrical and Magnetic Measurements.** Class 2 hours, laboratory 3 hours. Credit 3.
Prerequisite: Physics 201 and 202, or Physics 203 and 204, or the equivalent.
Required of all students of the Junior class in electrical engineering.
Text: Magnetism and Electricity for Advanced Students, Hadley.
Laboratory Manual: Electrical Measurements, C. M. Smith.
- 302 Electrical and Magnetic Measurements.** Class 1 hour, laboratory 3 hours. Credit 2.
Prerequisite: Physics 305.
This course is the continuation of 305, and it is required of all students of the Junior class in electrical engineering.
Text: Electrical Measurements, C. M. Smith.
- 303 Advanced Physics—Mechanics and Sound.** Class 3 hours, laboratory 3 hours. Credit 4.
Prerequisite: Physics 203, or the equivalent.
Required of Junior class students in exact science.
Text: General Physics for Advanced Students, Edser.

304 Advanced Physics—Heat and Thermodynamics. Class 3 hours, laboratory 3 hours. Credit 4.

Prerequisite: Physics 203, or the equivalent.

Required of Junior class students in exact science.

Text: Heat for Advanced Students, Edser.

403 Advanced Physics—Magnetism, Electricity and Radio-Activity. Class 3 hours, laboratory 3 hours. Credit 4.

Prerequisite: Physics 201 and 202, or Physics 203 and 204, or the equivalent.

Required of Seniors in exact science.

Text: Magnetism and Electricity for Advanced Students, Hadley.

Laboratory Manual: Electrical Measurements, C. M. Smith.

404 Advanced Physics—Light and Radiation. Class 2 hours, laboratory 3 hours. Credit 3.

Prerequisite: Physics 201-202, or Physics 203-204, or the equivalent.

Required of Seniors in exact science.

Text: Light for Advanced Students, Edser.

420 Teaching of Physics. Class 1 hour. Credit 1.

Prerequisite: Physics 105 and 106, or the equivalent.

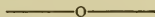
Required of Seniors in the course in exact science in the School of Science and Literature, and elective to all others who have the prerequisite knowledge of the subject matter. The pedagogy of physics in which the methods and procedure in teaching elementary physics will be discussed. Selection of subject matter for classwork and laboratory exercises, apparatus and equipment, choice of text and reference books will be discussed in detail.

430 Meteorology. Class 2 hours. Credit 2.

Prerequisite: Physics 31 and 32, or the equivalent.

All students of college grade are eligible. It will consist of two lectures per week illustrated by experiments and lantern slides. This course is a study of the physics of atmospheric changes and conditions which affect climate, seasons, storms, cyclones, weather maps and predictions, etc.

Text: Elementary Meteorology, Frank Waldo.



DEPARTMENT OF PUBLIC SPEAKING

J. R. PELSMA, *Professor*

This department aims to make each student an intelligent reader and an effective speaker. It aids him to systematize, to correlate, and to express his knowledge gained through study and experience; it encourages concentration, stimulates logical thinking, and gives opportunity for self-expression. It teaches control of thought and action, which is the acme of all education.

Public speaking students are required to attend and to report upon certain public speaking contests and other public addresses.

given during the semester, and are urged to join a literary society and to participate in some of the contests provided by the Oratorical Association.

The department has charge of the Amateur Dramatic Club. Its membership is open to students with histrionic ability. The club stages two plays each year.

SUBJECTS

123 Essentials of Public Speaking. (Five sections each semester.) Credit 1½.

This is an elementary course and a prerequisite to all other courses in public speaking. The fundamental principles of expression are emphasized through drills in correct breathing, tone production, voice modulations, and in the composition and the delivery of original speeches. A basis of self-criticism is effected enabling the student to continue improving his speeches after completing the course. The work will be adapted to the present and future needs of each student.

201 Argumentation and Debate. Class 2 hours. Credit 2.

A study of the principles of argumentation—analysis, evidence, proof, refutation and fallacies. Brief drawing. Practical debating. Platform technique. Critical study of masterpieces of forensic oratory. Parliamentary drill.

202 Oratory. Class 2 hours. Credit 2.

A study of the oration, the orator, and the audience. Analytical study of classic orations. Practice in the composition and the delivery of orations, formal speeches and occasional addresses. The psychology of the crowd in its relation to the public speaker. A brief history of oratory.

301 Extempore Speaking. Class 2 hours. Credit 2.

This course aims to cultivate in the student a fluent, forceful and effective presentation of his own thoughts to others. Daily practice will be given on assigned subjects previously mastered and outlined, though the diction of the speech is not memorized. Every student should learn to think while on his feet. This course affords an opportunity to become an effective platform speaker through a careful preparation and delivery of various forms of public addresses adapted to definite audiences.

302 Literary Interpretation. Class 2 hours. Credit 2.

An advanced course in reading. Classical literary selections will be studied with a view to their vocal interpretation. Studies in the dramatic monologue, humorous, pathetic and dramatic productions will be read. Physical expression. Dialect readings. Modern stage technique.

303 Oral English. Class 2 hours. Credit 2.

A course designed for teachers of English in secondary schools. Standard literary classics will be interpreted orally. Emphasis will be placed on college entrance requirements in English. Methods of teaching oral English in secondary schools. Vocal technique. Voice defects—diagnosis and treatment. Story-telling. Criteria for judging contests.

304 Seminar in Debating and Oratory. Class 2 hours. Credit 2.

An advanced course in debating and oratory. Designed for intercollegiate debaters, orators and their alternates.

THE SCHOOL OF EDUCATION

JOHN H. BOWERS, *Dean*

B. S. Degree and State Life Certificate

Students who complete the full four years' course in the School of Education receive a Bachelor of Science degree and a State Life Certificate in Oklahoma. Other teachers' certificates will be granted by the regular authorities for granting such certificates, State, county or city, to students who have done work at the A. and M. College on the same conditions as for work done at other institutions.

Short Courses for Teachers' Certificates

Those who desire to prepare for teaching and do not desire to take the full four year's course can attend the College one or more terms and elect such studies as are necessary to secure the particular certificate which they desire. When a subject is completed at the College the certificate-granting authorities of the State accept that credit instead of an examination. All subjects required for teachers' certificates are offered some time during the College year, and all such subjects are also offered during the Summer School.

Special Courses for Rural Teachers

The College offers excellent opportunities for those who are preparing to teach in the rural schools. The College instructors understand and appreciate the needs of country life and certain specialists in the College devote their best efforts to the problems of rural welfare.

Requirements for Graduation

The candidates for graduation from the School of Education, in addition to the subjects required for a State permanent certificate, must select a major group of studies, such as Biology, Physical Sciences, Social Sciences, Economics, History, English, Foreign Languages, Agriculture, Home Economics. Preparation,

may also be made for teaching Manual Training, Music and Commercial subjects.

Electives in Agriculture, Agronomy, Dairying, Horticulture, Entomology, Animal Husbandry, will be found by referring to the courses of study in the School of Agriculture. Students in the School of Education may elect any subjects in the School of Agriculture for which they have the prerequisite.

Electives in Home Economics, Domestic Science and Domestic Art will be found in the School of Home Economics. Students in the School of Education may elect any subjects in Home Economics for which they have the prerequisite.

A grade in Agriculture is required for a certificate, and to meet this requirement, men will be expected to take at least two semesters' work in Agriculture.

A grade in Domestic Science is required for a certificate, and women will be expected to take at least two semesters' work in Home Economics.

The literary, scientific and industrial work required of the students in the School of Education is done in those departments of the College having special facilities and equipment for teaching these branches efficiently and with greatest economy to the prospective teacher. And the special method of teaching these subjects in high school is also given in special courses in their respective departments.

COURSES IN THE SCHOOL OF EDUCATION

The following outline of study represents the required and elective work in the School of Education. The courses are numbered, beginning with one hundred in the Freshman year; odd numbers, as 101, represent the first semester's work in the subject, and the even numbers, as 102, the second semester's work. Subjects of the Sophomore, Junior and Senior years are numbered accordingly, two hundred for Sophomore, three hundred for Junior and four hundred for Senior work. One hour of laboratory period is equivalent to one-third of a classroom period in estimating the number of hours per week to be taken.

The total requirements for graduation are 128 credits exclusive of any credits given in military science and physical education. Students will not be allowed to register in fewer than 12 nor more than 20 credit hours.

Sophomore electives are open to Juniors and Seniors where the necessary prerequisite work is taken. Both Junior and Senior electives are open to either Juniors or Seniors.

In the outline below figures without parenthesis indicate hours of classwork, in parenthesis hours of laboratory work.

FRESHMAN YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Eng. 101	3	3	Eng. 102	3	3
Chem. 101	3	(4) $4\frac{1}{3}$	Chem. 102	2	(4) $3\frac{1}{3}$
Edu. 101	2	2	Edu. 102	2	2
Draw. 101	(4)	$1\frac{1}{3}$	Draw. 102	(4)	$1\frac{1}{3}$
Math. 109	3	3	Math. 110	3	3
A. H. 101 (men)	1	(4) $2\frac{1}{3}$	Hort. 104	2	(2) $2\frac{1}{3}$
H. E. 105 (women)	2	(4) $3\frac{1}{3}$	Pub. Spk. 123	1	(2) $1\frac{1}{3}$
H. E. 103 (women)	1	1	Pub. Sch. Music (women) ..	1	1
Pub. Sch. Music (men)	1	1	Military Science (men)	(3)	
Military Science (men)	(3)		Phys. Edu.	(3)	
Phys. Edu.	(3)				

SOPHOMORE YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Edu. 201	2	2	Edu. 202	2	2
Eng. 201	2	2	Eng. 202	2	2
Hist. 201	3	3	Hist. 202	3	3
Econ. 201	3	3	Physiology 202	3	(2) $3\frac{1}{3}$
Phys. Edu. (women)	(3)		Phys. Edu. (women)	(3)	
Military Science (men)	(3)		Military Science (men)	(3)	
Elective	6	6	Elective	6	6

JUNIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Edu. 301	3	3	Edu. 302	3	3
Edu. 307	2	2	Edu. 308	2	2
Soc. Sci. 301	2	2	Bact. 310	2	(4) $3\frac{1}{3}$
Bot. 101	2	(4) $3\frac{1}{3}$	Bot. 102	2	(4) $3\frac{1}{3}$
Elective	6	6	Elective	6	6

SENIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Edu. 405	2	2	Edu. 408	2	2
Edu. 407	2	2	Soc. Sci. 402	2	2
Edu. 431	2	2	Edu. 438	2	2
Elective	9	9	Elective	9	9

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DEPARTMENT OF EDUCATION AND SOCIAL SCIENCE

JOHN H. BOWERS, *Professor*
 G. W. DUNLAVY, *Visitor of Schools*
 FRED MCCARREL, *Instructor*

SUBJECTS

Education

101 Psychology. Class 2 hours. Credit 2.

The aim of this course is to teach the fundamental principles of psychology as a preparation for successful study and profitable school work, to teach the conditions, processes and laws of mental development and the motives and forces that give rise to human conduct.

102 Principles of Education. Class 2 hours. Credit 2.

This course deals with the general principles which underlie the work of teaching and of learning, and the application of such principles to educational processes. The content of this course is sometimes called Theory and Practice.

201 History of Modern Education. Class 2 hours. Credit 2.

The purpose of this course is to help arrive at correct notions of what ought to be done in the light of what has been done in education, and to study the diversity of ideals and the best methods for future advancement. The lives and works of great educators is made a source of inspiration and guidance.

202 Methods and Management. Class 2 hours. Credit 2.

The methods of teaching the different school subjects will be presented along with classroom management. Conducting the recitation, governing the school and securing cooperation and like practical problems will be discussed.

301 Psychology. Class 3 hours. Credit 3.

This course will give the fundamentals of physiological psychology, and a study of the main problems and methods of psychology, sensation, attention, habits, association of ideas, perception, memory, imagination, conception, judgment, reasoning, emotion, volition and personality.

302 Applied Psychology. Class 3 hours. Credit 3.

This course deals with the application of the laws and methods of psychology to problems of life and the work of teaching.

308 Child Study. Class 2 hours. Credit 2.

This course studies the aims and methods of child study, the problems of interest, personality and habit formation, the states of development in childhood and adolescence, and the problems of child welfare.

307 Rural Education. Class 2 hours. Credit 2.

This course deals with the problems of rural school support, administration, supervision, management, and how to make the rural school meet the needs of rural life.

405 Ethics and Moral Education. Class 2 hours. Credit 2.

The fundamental principles of the moral life are studied along with the moral ideals and methods of the individual, the family, the State and other social institutions. The aim is to understand such moral principles as will promote both individual and social welfare, and how these principles operate in character-building and in school work.

406 Logic and the Learning Process. Class 2 hours. Credit 2.

A study of the law of thinking and the processes of true reasoning. Common errors in thinking with the causes for such errors are pointed out, and also guiding principles for correct thinking processes, and for scientific study and investigation.

407 Philosophy of Education. Class 2 hours. Credit 2.

A brief study of educational aims and values, such as vocational education, social education, disciplinary education, cultural education, health education, moral education, and the best means of attaining these ends in the schools.

408 School Administration and Supervision. Class 2 hours. Credit 2.

A study of the curriculum, organization, finance and administration of country schools, town schools and city schools, and the powers and duties of school executives.

430 Educational Measurements. Class 2 hours. Credit 2.

A study of the Curtis tests in reading, writing and arithmetic; Hillegas' tests in composition; the Ayers and Thorndike tests in writing; and a study of the general problems of determining standards of attainment.

Agricultural Education**403** Class 3 hours. Credit 3.

Organization and development of agricultural education in the United States, with special reference to teaching agriculture in schools below college rank; organization and presentation of subject matter adapted to use in secondary schools. Some time will be given to practicum work and to practice teaching.

One of the courses in education to be taken by those who expect to teach in the public schools should be the theory and practice of teaching that subject which the student has chosen as his major.

Election may be made from the following courses:

410 Manual Training Teaching. Class 2 hours.

Theory and practice teaching.

412 Science Teaching. Class 2 hours.

Theory and practice teaching.

414 Teaching Mathematics. Class 2 hours.

Theory and practice.

415 History Teaching. Class 2 hours.

Theory and practice.

416 English Teaching. Class 2 hours.

Theory and practice.

417 Public School Drawing. Class 2 hours.

Theory and practice teaching.

418 Public School Music Teaching. Class 2 hours.

Theory and practice teaching.

419 Primary Teaching. Class 2 hours.

Theory and practice teaching.

421-422 Education. Practice Teaching 4 hours. Credit 1½.

Prerequisite: Edu. 102.

Development of lesson plans and methods in secondary education; observation and practice teaching, with full charge of classroom under competent supervision.

Required of all students preparing to become "Smith-Hughes" teachers of agriculture. Not to be taken before the Junior year.

431 Physiological and Experimental Psychology. Class 1 hour, laboratory 3 hours. Credit 2.

A study of the functions of the nervous system, of the relation of mind and body, of physiological methods, of visual, auditory and other sensations along with the application of experimental methods.

432 Vocational Psychology. Class 2 hours. Credit 2.

Practical phases of psychology applied to the affairs of everyday life. Each student will be allowed to do some independent work along the line of his own interest or his own chosen vocation.

433 Psychology of High School Subjects. Class 2 hours. Credit 2.

A review of the mental processes involved in the study of secondary school subjects; a treatment of the general problem of study and of adolescent development.

434 Social Psychology. Class 2 hours. Credit 2.

A study of human nature with reference to social behavior, social control, social ethics and social progress; character-building under social influences; student self-government and community cooperation.

NOTE.—Edu. 431, 432, 433, 434, advanced psychology courses, are open to graduate students and Senior College students who have had elementary psychology, or who take elementary psychology concurrently. In conference with the Dean of the School of Education, each graduate student may arrange to do some work along the line of his own interest.

435 Vocational Education. Class 2 hours. Credit 2.

A review of the history, purposes, organization, methods and promotion of vocational education and its articulation with the traditional school systems, and with the preparation for life work.

436 High School Administration. Class 2 hours. Credit 2.

A study of the problems of high school management, the rural and village high school, the junior high school, the course of study, vocational studies, the government, social and moral life of the high school.

437 History of American Education. Class 2 hours. Credit 2.

A study of the growth and progress of educational systems and methods with emphasis on the more recent development for the guidance of those who must help determine what shall be our own best lines of advancement in the immediate future.

438 Social Phases of Education. Class 2 hours. Credit 2.

Education as a socializing process. The school as a social factor. The extension of the school. How the school may build the character that will improve social conditions and aid in the solution of social problems.

NOTE.—Edu. 435, 436, 437, 438 are open to graduates and Senior College students who have had 4 hours in education or experience in teaching, or who take elementary courses concurrently. In conference with the head of the department, each graduate student may arrange to do some work along the line of his own interest.

Social Science

301 Sociology and Social Welfare. Class 2 hours. Credit 2.

A brief study of the conditions of social life, social psychology, social organizations, social development, social control, social institutions, and the factors involved in social progress and social welfare.

304 Social Problems. Class 2 hours. Credit 2.

A study of rural social life and rural welfare along with the problems of poverty, public health, social insurance, and the legal and spiritual remedies for some of our greatest social defects.

401 Government and Political Methods. Class 2 hours. Credit 2.

The object is to teach the actual methods of self-government; to make an impartial study of the methods by which political parties organize and conduct their campaigns, along with the improvements that might be made in party methods and in actual government.

402 Political Theory. Class 2 hours. Credit 2.

A survey of the forms through which governments have evolved, of the principles of government, and of the actual practices of our American State and National Governments.

Political and Social Science**405 Rural Sociology.** Class 2 hours. Credit 2.

Conditions of country life and constructive organization for improvement. A survey of social conditions for the purpose of rural progress. Improvements in rural homes, rural health, culture, literature, art, religion, recreation and education.

406 Social Conservation. Class 2 hours. Credit 2.

To learn the methods of resisting the waste of resources. Social methods of conserving soil, lumber, mineral and other resources. To eliminate certain kinds of human waste. To reduce the human waste of indolence, vagrancy, extravagance, inefficiency, vice, crime and alcoholism.

407 Elementary Law. Class 2 hours. Credit 2.

An introductory view of the nature of law, its sources and the methods of its development along with some of the essentials of the different phases of law most useful to the layman.

408 Law for the American Farmer. Class 2 hours. Credit 2.

A brief study of the laws of contracts, partnerships, landlord and tenant, agency, insurance, negotiable paper and other elements of business law.

NOTE.—401, 402, 407, 408, advanced social science work, will be arranged for graduate students.

THE SCHOOL OF COMMERCE AND MARKETING

II. W. MOORHOUSE, *Dean*

This course has been planned to give students an understanding of business and business relationships. Commerce, industry and trade have become so complex that men engaged in such activities must have a thorough knowledge of business methods and economic principles.

Commerce, which was once limited to small, restricted areas, now, with modern transportation and communication, covers the entire earth. Marketing, at one time a single transaction, is now an intricate process, weaving its way through a maze of varied industry and business.

Since the great majority of students enter some branch of industry, it is important that opportunity should be given in a course of this kind to gain a grasp of fundamental business principles.

The largest single group of subjects is taught by the Department of Economics and Marketing. These subjects give young men breadth of view in business affairs and train them in the execution of details for the purpose of preparing them for active management in the world of industry. The description of these courses on another page shows the scope and strength of the work.

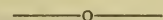
There is ample opportunity for electives in other departments. The business man must be broad-gauged. He is constantly called upon to meet a vast variety of problems. The banker, for instance, should know livestock. The merchant and manufacturer should understand the uses of chemistry. Every business is vitally related to every other business and to science, history and psychology.

In agriculture the student can take Commercial Grades of Grain, Livestock Judging, Cotton Grading, Fruit Packing and Grading; in business training, Bookkeeping, Typewriting, Short-

hand; in science, Chemistry, Petroleum Technology, Investment and Insurance Mathematics.

Spanish and French languages are offered for the benefit of the men who may want to represent corporations or the Government abroad. Other valuable electives are History, Journalism, Public Speaking and Psychology. These and many additional subjects in other departments can be used by the student in pointing his study in the direction of his special interests.

It is believed that this course gives a broad, deep grasp of business knowledge and that the graduate who has initiative and is willing to work will always make a big place for himself in his chosen field of affairs.



COURSES IN

THE SCHOOL OF COMMERCE AND MARKETING

The following outline of study represents the required and elective work in the School of Commerce and Marketing. The courses are numbered, beginning with one hundred in the Freshman year; odd numbers, as 101, represent the first semester's work in the subject and the even numbers, as 102, the second semester's work. Subjects of the Sophomore, Junior and Senior years are numbered accordingly, two hundred for Sophomore, three hundred for Junior and four hundred for Senior work. One hour of laboratory period is equivalent to one-third of a classroom period in estimating the number of hours per week to be taken.

The total requirements for graduation are 128 credits exclusive of any credits given in military science and physical education. Students will not be allowed to register in less than 12 nor more than 20 credit hours. Sophomore electives are open to Juniors and Seniors where the necessary prerequisite work is taken.

In the outline below figures without parenthesis indicate hours of classwork, in parenthesis, hours of laboratory work.

FRESHMAN YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Chem. 101, Inorganic	3 (4)	4½	Chem. 102, Inorganic	2 (4)	3½
Eng. 101, College	3	3	Eng. 102, College	3	3
Econ. 103, Products of Commerce	3	3	Econ. 102, Elements of Business	2	2
Bus. 103, Typewriting	(10)	3½	Econ. 104, Products of Commerce	3	3
Pub. Spk. 123, Essentials of Public Speaking	1 (2)	1½	Bus. 104, Typewriting	(10)	3½
Physical Education	(3)		M. E. 104, Mechanical Drawing	(4)	1½
Military Science	(3)		Physical Education	(3)	
			Military Science	(3)	

SOPHOMORE YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Econ. 201, Principles of Economics	3	3	Econ. 202, Principles of Marketing	3	3
Econ. 203, Transportation	3	3	Econ. 204, Labor Economics	3	3
Foreign Language	3		Foreign Language	3	3
Electives		7	Electives		7

JUNIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Econ. 301, Business Organization	3	3	Econ. 306, Accounting	3	3
Econ. 303, Banking	3	3	Econ. 310, Insurance	3	3
Econ. 309, Accounting	3	3	Econ. 312, Salesmanship	3	3
Electives		7	Electives		7

SENIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
Econ. 415, Foreign Trade....	3	3	Econ. 410, Domestic Markets	2	2
Econ. 419, Taxation	3	3	Econ. 414, Rural Economics	2	2
Econ. 421, Traffic Rates	3	3	Econ. 418, Business Administration	3	3
Econ. 425, Laws of Business	3	3	Econ. 422, Laws of Business	3	3
Electives		4½	Electives		6

Electives for Commerce and Marketing

Commerce and Marketing students may elect subjects offered by the following departments, subject to the approval of the Dean of the School of Commerce and Marketing:

Group I—Agriculture

Department of Animal Husbandry.
 Department of Dairy Husbandry.
 Department of Poultry Husbandry.
 Department of Agronomy.
 Department of Horticulture.
 Department of Farm Engineering.

Group II—Office Training

*Department of Business Training.

Group III—English, Public Speaking and Foreign Language

Department of English.
 Department of Foreign Languages.
 Department of Public Speaking.

Group IV—Science

Department of Chemistry.
 Department of Mathematics.
 Department of Physics.
 Department of Biology.
 Department of Chemical Engineering.

Group V—Pedagogy, Sociology and History

Department of History.
 Department of Education and Social Science.

*Credit in this department is limited as follows: Shorthand 12, Typewriting 6½, Bookkeeping 6½.

DEPARTMENT OF ECONOMICS AND MARKETING

H. W. MOORHOUSE, *Professor*
R. M. JOHNSTON, *Instructor*

SUBJECTS

102 Elements of Business. Class 2 hours. Credit 2.

An elemental study of business and business men for the purpose of observing the principles of business success in order that the students, in the first year of their course, may begin to plan and pursue their future studies more effectively.

103 Products of Commerce. Class 3 hours. Credit 3.

A study of the materials and industries essential to man and the basis of all trade, such as cereals, cattle, fisheries, sugar, textiles, paper, leather, rubber, manufacturing, forest and mineral industries. A study also of products in relation to location. A survey of the ocean trade routes of all the continents, of the Panama canal and world commerce, of the trade center and its development, of the influence of geographic factors on the commercial policy of Nations.

Text: *Industrial and Commercial Geography*, Smith.

104 Products of Commerce. Class 3 hours. Credit 3.

A continuation of Economics 103.

Text: *Industrial and Commercial Geography*, Smith.

201 Principles of Economics. Class 3 hours. Credit 3.

A presentation of the fundamental principles of all business. An analysis of the production, consumption and distribution of wealth, of price movements and causes. An introduction to the study of money and banking, business organization, insurance, public finance, etc.

Prerequisite for all economic subjects except Econ. 102, 103, 104.

Text: *Principles of Economics*, Seligman.

202 Principles of Marketing. Class 3 hours. Credit 3.

Prerequisite: Econ. 201.

A thorough examination of the following factors in their relation to marketing; the product, price, instruments of exchange, transportation, exchanger, salesmanship, buyership, cooperation, governmental activities, etc.

Text: *Marketing Farm Products*, Weld.

203 Transportation. Class 3 hours. Credit 3.

Prerequisite or Concurrent: Econ. 201.

This course deals primarily with railroad economics, but some attention is given to water and highway transportation. The subject includes a history of railroad development in the United States, showing present problems and the relation of transportation to commerce. Railroad administration in foreign countries is investigated and study is made of governmental ownership.

Text: *Elements of Transportation*, Johnson.

204 Labor Economics. Class 3 hours. Credit 3.

Prerequisite: Econ. 201.

A study of labor conditions from the standpoint of manager and laborer. A survey of scientific management, wage systems, factory laws, accident compensation, strikes, compulsory arbitration, organized labor, woman and child labor, welfare work, etc.

Text: *Organized Labor in America*, Groat.

301 Business Organization. Class 3 hours. Credit 3.

Prerequisite: Econ. 201.

The one-man business, partnership and corporation are studied and compared. Special emphasis is placed on the corporation in its many ramifications as holding company, merger, amalgamation, trust, etc. Pooling agreements, promotion, sale of securities, receivership, and Government regulation are covered thoroughly.

Text: Business Organization and Combination, Haney.

303 Banking. Class 3 hours. Credit 3.

Prerequisite: Econ. 201.

The relation of money and credit to every business activity is shown and studies are made of the currency systems of this and foreign countries. Special attention is given to an analysis of commercial and investment paper. A thorough survey is made of the history, organization and present operation of national banks, state banks, trust companies, treasury system, Federal reserve banks, Federal land banks, etc.

Text: Money and Banking, Scott.

306 Accounting. Class 3 hours. Credit 3.

Prerequisite: Econ. 201, 309.

Continuation of Economics 309.

Text: Accounting Theory and Practice, Kester.

308—Business for Women. Class 2 hours. Credit 2.

An explanation of the common instruments of business and of important economic principles. An examination of marketing problems with special reference to products bought for the home. A comparison of wholesale and retail, direct and indirect, cash and credit buying. Also a description of practical plans for household accounting.

Text: Reducing Cost of Living, Nearing.

309 Accounting. Class 3 hours. Credit 3.

Prerequisite: Econ. 201.

A thorough course in the theory and technique of accounts, including the principles of single and double entry accounting systems, the financial books, classification of accounts, the asset accounts, the liability accounts and financial statements, such as the balance sheet, the statement of affairs, statements of income and profit and loss, etc.

Text: Accounting Theory and Practice, Kester.

310 Insurance. Class 3 hours. Credit 3.

Prerequisite: Econ. 201.

A study of life, property and social insurance. A survey of the various forms of insurance organizations and a close analysis of mortality tables, the policy contract, premium, the interest basis, investments, relation of the State to insurance, etc.

Text: Principles of Insurance, Gephart.

312 Salesmanship. Class 3 hours. Credit 3.

Prerequisite: Econ. 201-202.

A survey of the principles of salesmanship. Selling talks, sales letters and advertising copy are analyzed and practice in their preparation and application is given. Lessons are drawn from sales departments of large corporations. Goods, prices and market conditions are studied.

Text: Personal Efficiency and Selling, Allen.

406 Economics and Contracts. Class 2 hours. Credit 2.

A brief presentation of some of the most essential branches of economics, such as corporation organization, banking, etc., together with a careful consideration of the laws of contracts, including practice in the drawing up of contracts.

407 Cost Accounting. Class 3 hours. Credit 3.

Prerequisite: Econ. 201, 309, 306.

The principles and methods of cost accounting are presented in a simple and direct manner so that the student may be able to grasp them quickly and become thoroughly familiar with the theory of cost accounting and its relation to the general accounting system. The functions of costs and their relation to management is first studied; cost systems by which costs are determined are taken up and examined; and the interpretation of the cost data is given special attention.

Text: Cost Accounting, Nicholson.

410 Domestic Markets. Class 2 hours. Credit 2.

Prerequisite: Econ. 201, 202, 203.

A special study is made of the products of the various sections of the United States, the transportation routes which these take to their respective domestic markets, the market machinery, the prevailing prices, the prices covering a period of years, the finished product which results, etc.

414 Rural Economics. Class 2 hours. Credit 2.

Prerequisite: Econ. 201.

A study of farm business and rural life. A view of the relation of the farm home, social life, good roads, community cooperation, tenantry, soil conservation, standardization of crops, rural credits and better marketing to rural progress. A broad view of the possibilities of reorganizing agriculture and rural life. A thorough survey is made of rural conditions in foreign countries, United States and Oklahoma.

415 Foreign Trade. Class 3 hours. Credit 3.

Prerequisite: Econ. 201, 202.

The principles on which foreign trade is based and developed are emphasized. United States consular reports and statistical information bearing on exports and imports of various countries are analyzed. Inquiries are made into opportunities for international trade development.

Text: Trade of the World, Whelpley.

417 City Economics. Class 2 hours. Credit 2.

Prerequisite: Econ. 201.

A view of municipal administrative problems. The franchise and the regulation and ownership of public utilities are subjects for special consideration. Special attention is also given to the commission and city manager forms of government.

Text: The Modern City and Its Problems, Howe.

418 Business Administration. Class 3 hours. Credit 3.

Prerequisite: Econ. 201, 301.

Actual practice in planning and executing business enterprises. Boards of directors' meetings are held, committee work assigned, etc. The grasp of each student of the enterprise as a whole and his ability to master details are thoroughly tested.

Text: Getting the Most Out of Business, Lewis.

419 Taxation. Class 3 hours. Credit 3.

Prerequisite: Econ. 201.

A general consideration of questions of public finance. The general property tax, the income and inheritance taxes, and all methods of taxation in use in Oklahoma and the United States are studied.

Text: *Taxation*, Fillebrown.

421 Traffic Rates. Class 3 hours. Credit 3.

Prerequisite: Econ. 201, 203.

Traffic problems of railroads particularly are examined carefully. A close comparison is made of land and water rates between certain points, and of freight and express shipments. Questions of routing and adjustment of claims, etc., are reviewed, and freight classification in its relation to the making of rates is especially emphasized. The reports of State Railroad Commissions and the Interstate Commerce Commission are analyzed.

Text: *Freight Classification*, Strombeck.

422 Laws of Business. Class 3 hours. Credit 3.

Prerequisite: Econ. 201, 425.

Continuation of *Economics* 425.

Text: *Manual of Commercial Law*, Spencer.

423 Auditing. Practice 4 hours. Credit 1½.

Prerequisite: Econ. 201, 306; Bus. 301.

The duties of the auditor are studied and correlated with those of the accountant and cost accountant. Special attention is given to the qualifications of the auditor and the methods of conducting an audit. Practical problems are worked out.

425 Laws of Business. Class 3 hours. Credit 3.

Prerequisite: Econ. 201.

A thorough course in the fundamental principles of law in the field of contracts, agency, sales, real estate, personal property, business associations, trademarks, patents, interstate commerce, insurance, bankruptcy and receivers, etc. Leading illustrative cases are reviewed. Special attention is given to the statutes of Oklahoma.

Text: *Manual of Commercial Law*, Spencer.

DEPARTMENT OF BUSINESS TRAINING

S. C. BEDINGER, *Professor*
A. C. DOERING, *Assistant Professor*
WILLARD RUDE, *Assistant Professor*

The regular two-year course in business training is open to students who have completed two years of high school work or have 7½ units. Students not having these qualifications will be permitted to take either a straight shorthand or bookkeeping course, such course to be outlined according to each individual student's previous preparation for the work. Applicants must be at least 18 years of age. Applications for advanced standing should be made to the head of the department. At the completion of the two-year course the student is given a diploma, showing that he has completed the business training course.

OUTLINE OF COURSES IN THE DEPARTMENT OF BUSINESS TRAINING, GIVING SUBJECTS AND HOURS

FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours		Hours
Bus. 1, Arithmetic	3	Bus. 2, Arithmetic	3
Bus. 3, Bookkeeping	(10)	Bus. 4, Bookkeeping	(10)
Business English	3	Bus. 5, Correspondence	3
Bus. 5, Spelling & Penmanship	(3)	Bus. 6, Spelling & Penmanship	(3)
Bus. 7, Shorthand or Stenotypy	4	Bus. 8, Shorthand or Stenotypy	4
Bus. 9, Typewriting	(5)	Bus. 10, Typewriting	(8)

SECOND YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours		Hours
Bus. 63, Salesmanship	3	Bus. 52, Office Training	2
Bus. 59, Business Law	3	Bus. 54, Spelling & Penmanship	(3)
Bus. 65, Banking	2	Bus. 56, Typewriting	(10)
Bus. 57, Dictation	(8)	Bus. 58, Business Law	3
Bus. 53, Spelling & Penmanship	(3)	Bus. 60, Dictation	(8)
Bus. 55, Typewriting	(8)	Bus. 62, Business Economics	3
Pub. Spk. 121, Essentials	(2)	Pub. Spk. 122, Essentials	(2)

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SUBJECTS

1-2 Arithmetic. Class 3 hours. Credit 3.

The nonessentials are entirely omitted in this work. Those parts are given which contribute to business efficiency, such as: Aliquot parts, fractions, interest and discount, storage, percentage, profit and loss, partnership settlements, equation of accounts and partial payments.

3-4 Bookkeeping. Class 10 hours. Credit 3½.

This course covers the different and various lines of industries. First, elementary work is given in the fundamental principles of debit and credit, followed by work in columnar books and statements of various kinds. There is special work in the closing of ledgers, the making of special business, trading, profit and loss and financial statements. In the more advanced work is included: Partnership and corporation accounting, special cost accounting, and work in the following particular lines: Banking, real estate, insurance, railroad station work, manufacturers and jobbing and commission accounting. The thorough work in the above lines is supplemented with an auditing department where the functions of this subject are taught and its relation to the other departments shown.

301 Bookkeeping. Class 2 hours, bookwork 3 hours. Credit 3.

The principles in this course are the same as in Business 3 and 4, but presented in condensed form.

5-6-53-54 Spelling.

All persons taking the Business Course must carry this subject. Thousands of positions are each year either not secured or lost on account of bad spelling. The value of spelling to the stenographer especially is obvious. The same is almost equally true with the bookkeeper. The work in spelling is always written. Students are required to make a grade of 95% on examination in the subject before securing a diploma.

Penmanship.

The business world demands that penmanship should be plain, rapid, easily written and easily read. Slow writing is out of date. The student is taught the arm or muscular movement method. At first considerable time is spent on movement drills in order to develop a good foundation; this is followed by intermediate drills, and finally the letters, according to principles and frequency of occurrence. A great deal of time is spent on sentence practice and letter-writing. The development of a small, rapid, condensed handwriting is the end in view.

7-8 Shorthand. Class 4 hours. Credit 4 each.

This course covers thoroughly the Shorthand Manual and gives the student a thorough knowledge of the principles of the shorthand system, work signs, contraction and phrases, etc. This is followed by a large amount of dictation. The Gregg System is taught.

101-102 Shorthand. Class 4 hours. Credit 4 each.

Similar to Bus. 7 and 8.

9 Typewriting. Machine work 8 hours. Credit 2½.**10 Typewriting.** Machine work 8 hours. Credit 2½.

Prerequisite: Bus. 9.

The touch system is employed. Mastery of the keyboard and a general knowledge of the mechanism of all standard machines. Requirements: First ten lessons in rational typewriting, or the equivalent, and a speed of twenty words per minute from copy matter. Speed drills and instruction in the care and adjustment of the typewriter. For stenographers, drills in transcription from shorthand notes and construction of letters. Nine hours per week. Requirements: Completion of all lessons in the Manual up to Lesson 26, and a speed of thirty words per minute. Copy matter.

55 Typewriting. Machine work 8 hours. Credit 2½.

Prerequisite: Bus 9 and 10.

56 Typewriting. Machine work 10 hours. Credit 3½.

Prerequisite: Bus. 9, 10, 55.

Completion of the lessons in the Manual. Drills in speed writing from manuscripts and rapid transcription from shorthand notes, including business letters and miscellaneous matter. Requirements: A speed of forty words per minute from copy matter; from shorthand notes, new matter transcribed at the rate of twenty words per minute. Rapid transcription from shorthand notes. Dictation direct to the machine. Legal forms, stencil-cutting and care of the machine. Requirements: A speed of fifty words per minute from copy matter, with not over five errors; from shorthand notes, transcribed at the rate of thirty-five words per minute, from new matter. All papers to be graded by the International Typewriting Rules.

103, 104 Typewriting. Machine work 10 hours. Credit 3½.**51 Business Correspondence.** Class 3 hours. Credit 3.

A practical knowledge regarding the art of selling by mail is given in this subject. Selling personal services, selling merchandise, or anything else where the art of selling is involved, is carefully taught; in other words, successfully doing business by letter.

52 Office Training. Class 2 hours. Credit 2.

This course is to meet the great needs of the stenographer who goes to work in an office. After completing the shorthand manual and taking up dictation the student is then ready for this course. It is intended to put the finishing touches to the student's knowledge of shorthand and typewriting. Thorough instruction is given in business ethics, the mechanics of letterwriting, uses of business forms and papers, filing, bills, shipping, duplicating, constructing business letters, rough draft, and, in fact, any other work likely to come under the student's supervision in an office.

58-59 Business Law. Class 3 hours. Credit 3.

This subject takes up contracts, negotiable paper, partnership, sale of chattels, interest, usury, wills, conveyances of real estate, mortgages, etc.

57-60 Dictation. Practice 8 hours. Credit 2½.

The work on the manual and that of dictation are by no means separate and distinct, since dictation begins early in the theory work, and theory continues through dictation. However, the second semester of the work is more largely dictation. Before advancing to office practice the student should develop sufficient ability to write new matter from dictation at an average speed of seventy-five words a minute for a period of half an hour. New matter at the rate of 100 words a minute for five minutes, transcribed accurately, is required for graduation.

65 Banking. Class 2 hours. Credit 2.

This course is designed for three classes of students: Those who intend to devote themselves to the business of banking, those who are thus engaged, and those who are desirous of knowing more about money and the banking business in general.

62 Business Economics. Class 3 hours. Credit 3.

This subject treats of those social conditions that are due to the wealth-getting and wealth-using activities of man; and which deal with all phases of his life insofar as they affect his social activity in this respect.

63 Salesmanship.

The students of today have a great opportunity for real leadership in the smaller towns and cities, as well as the large centers of this country. To succeed to this leadership they must understand the psychology of salesmanship.

402 Office Administration. Class 1 hour, office work 2 hours. Credit 1½.

Prerequisite: Bus. 101, 102.

In this course the principles underlying the organization and management of an office and the employes are carefully analyzed. The following subjects are examined: The office, equipment, heating, lighting and ventilation; office employes, their selection, training, experience and salary; office appliances; mechanical aid in office work; relation between manager and employes; human touch, efficiency; office records and systems; correspondence filing, card indexing, order systems, credits, collections, advertising, sales, and the purchase and handling of supplies.

Typewriting Rates

15 hours a week, one semester	\$ 3.00
10 hours a week, one semester	2.00
5 hours a week, one semester	1.00

Stenotypy Rates

First semester	\$ 1.00
Second semester	1.00

Special students, or those taking typewriting where it is not a required subject in their course, will be charged \$2.50 a semester regardless of hours taken.

THE SCHOOL OF VETERINARY MEDICINE

L. L. LEWIS, *Dean and Professor of Veterinary Medicine*

E. A. BENBROOK, *Assistant Professor*

J. E. NANCE, *Instructor*

..... *Instructor*

..... *Instructor*

The growing importance of the livestock industry of the State has made a course in Veterinary Medicine a necessity. The work is outlined so as to provide a thorough and well-balanced course of instruction leading to the degree of Doctor of Veterinary Medicine.

The entrance requirements to this course of study include the presentation of 15 units of high school work. (See entrance credits in first of catalog for detailed statement.)

Candidates for the degree of Doctor of Veterinary Medicine must have attained the age of twenty-one years and satisfactorily completed all of the course as outlined.

There are many opportunities in professional and scientific work for young men of thorough training in veterinary medicine. In order to meet the demands that are made on those entering the field of private practice or positions requiring technical knowledge, the veterinarian must have a good general education in addition to the specialized work in veterinary medicine.

The last two years work in veterinary medicine will not be given in 1918-19.

Some of the more prominent fields of work open to veterinarians are as follows:

Private Practice.—There are many good fields of work, not only in Oklahoma, but in other States. There is a growing interest in the South in the livestock business, and as money invested in livestock increases, so will the demand for competent veterinarians.

Civil Service.—Much important work in the United States Department of Agriculture is open only to men who are graduates from veterinary colleges.

State and City Work.—The positions of State and Assistant

State Veterinarians and municipal food inspectors are open as a rule only to qualified veterinarians.

The army service also offers a field of work that is becoming attractive to qualified men.

COURSES IN THE SCHOOL OF VETERINARY MEDICINE

The following outline of study represents the required work in the School of Veterinary Medicine. The courses are numbered, beginning with one hundred in the Freshman year; odd numbers, as 101, represent the first semester's work in the subject, and the even numbers, as 102, represent the second semester's work. Freshman and higher class subjects are numbered as hundreds, one hundred for Freshman work, two hundred for Sophomore work, etc. The laboratory work is in parenthesis, and three hours of this work is equivalent to one theory hour, or 1 credit. To graduate, a student must complete the following course as outlined. Registration will not be permitted in less than 12 nor more than 20 credit hours.

FRESHMAN YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
V. M. 101, Anatomy	2	(6) 4	V. M. 102, Anatomy	2	(6) 4
V. M. 103, Histology	2	(4) 3½	V. M. 104, Histology	2	(4) 3½
Zool. 201, General	2	(4) 3½	Chem. 102, Inorganic	2	(4) 3½
Chem. 101, Inorganic	3	(4) 4½	Zool. 402, Embryology	2	2
Military Science	(3)		A. H. 202, Breeds	2	(3) 3
Physical Education	(3)		Military Science	(3)	
			Physical Education	(3)	

SOPHOMORE YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
V. M. 201, Anatomy	2	(6) 4	V. M. 202, Anatomy	2	(6) 4
V. M. 203, Materia Medica	3	3	V. M. 204, Materia Medica	3	3
V. M. 205, Pathology	2	(4) 3½	V. M. 206, Pathology	2	(4) 3½
V. M. 211, Physiology	3	(2) 3½	V. M. 212, Physiology	3	(2) 3½
V. M. 209, Parasitology	2	(2) 2½	V. M. 208, Pharmacy	1	(3) 2
Military Science	(3)		A. H. 306, Animal Nutrition	3	3
			Military Science	(3)	

JUNIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
V. M. 301, Theory and Practice	3	3	V. M. 302, Theory and Practice	4	4
V. M. 317, Therapeutics	3	3	V. M. 304, Therapeutics and Toxicology	4	4
V. M. 305, Surgery	2	2	V. M. 306, Surgery	3	3
V. M. 307, Surgical Anatomy	(4)	1½	V. M. 310, Bacteriology	3	(4) 4½
V. M. 303, Clinical Diagnosis	2	2	V. M. 314, Clinic	(6)	2
V. M. 311, Special Pathology	1	(3) 2			
V. M. 319, Soundness	(2)	¾			
V. M. 321, Restraint	(2)	¾			
V. M. 313, Clinic	(7)	2½			

SENIOR YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Hours	Cr.		Hours	Cr.
V. M. 401, Theory and Practice	4	4	V. M. 402, Theory and Practice	4	4
V. M. 403, Surgery	3	3	V. M. 404, Special Surgery	2	2
Bact. 403, Technical	3	(4) 4½	V. M. 406, Milk and Dairy Inspection	1	(2) 1½
V. M. 405, Dentistry	1	1	V. M. 408, Laboratory Diagnosis	(2)	¾
V. M. 411, Obstetrics	3	3	V. M. 410, Meat Inspection	3	3
V. M. 415, Clinic	(7)	2½	V. M. 412, Lameness and Shoeing	2	(4) 3½
			V. M. 414, Jurisprudence	1	1
			V. M. 416, Clinic	(6)	2

Description of Courses and Equipment

The equipment used for instruction in veterinary medicine includes that of the laboratories of bacteriology, physiology, chemistry and zoology. Separate buildings are provided for the work in anatomy and the medical and surgical treatment of animals. Such facilities will enable students to undertake their work with all conveniences and equipment afforded by well established courses of instruction.

SUBJECTS

101 Anatomy. Class 2 hours, laboratory 6 hours. Credit 4.

Osteology and myology of head and neck.

A comparative study of the muscles of the head and neck of the horse. Instruction in anatomy extends over a period of two years and is given by lectures, recitations and laboratory work. Each student is required to make one or more complete dissections of the horse, with comparative dissections of the trunk and viscera of other domesticated animals.

Text: The Anatomy of the Domestic Animals, Sisson.

102 Anatomy. Class 2 hours, laboratory 6 hours. Credit 4.

Prerequisite: Anat. 101.

Myology of the thoracic limb and trunk.

103 Histology. Class 2 hours, laboratory 4 hours. Credit 3½.

Histology is microscopic anatomy and in the allotted time the student is required to collect, prepare and make drawings of all the different tissues of the body. This course is necessary in order that the later instruction in the various disease processes may be fully understood.

104 Histology. Class 2 hours, laboratory 4 hours. Credit 3½.

A continuation of the work of the previous semester.

Text: Normal Histology, Piersol.

Reference: Ferguson; Davidhoff and Huber; Stedman's Medical Dictionary.

201 Anatomy. Class 2 hours, laboratory 6 hours. Credit 4.

Prerequisite: Anat. 101, 102.

Myology of pelvic limb and splanchnology.

In addition to the dissection of the muscles and ligaments of the

pelvis and hind limb, dissections of the organs and viscera of the trunk will be commenced and continued through the next semester.

202 Anatomy. Class 2 hours, laboratory 6 hours. Credit 4.

Prerequisite: Anat. 101, 102, 201.

Angiology and neurology.

The work of this semester will be a continuation of the dissections of the viscera and will include a special study of the circulatory and nervous systems of the horse. Surgical regions are especially emphasized.

203-204 Materia Medica. Class 3 hours. Credit 3.

Prerequisite: Freshman Chem. 101 and 102.

Materia medica is a subject that deals with the origin, derivation, physical and chemical properties and tests of purity of medical materials. The subject is taught throughout the second year, the first half being inorganic and the second half organic.

Text: Materia Medica and Therapeutics, Winslow.

205-206 General Pathology. Class 2 hours, laboratory 4 hours. Credit 3½.

Prerequisite: Vet. Med. 103 and 104.

A study of the effects of disease processes upon the body tissues and fluids without reference to any particular disease. In the laboratory these processes are studied and drawn with the aid of the microscope and projectoscope. The students are instructed in laboratory technique.

208 Pharmacology. Class 1 hour, laboratory 3 hours. Credit 2.

A lecture and laboratory course given to the second-year class during the second semester, embracing a study of the theory of pharmaceutical methods and operations and the compounding of various preparations with special reference to prescription work.

209 Parasitology. Class 2 hours, laboratory 2 hours. Credit 2½.

A study of internal and external parasites of the domestic animals is taken up and their methods of control and eradication discussed.

211-212 Comparative Physiology. Class 3 hours, laboratory 2 hours. Credit 3½.

By aid of lectures, demonstrations and tests the comparative physiology of the domesticated animals is presented in a thorough and practical manner.

The veterinary students have access to the well equipped physiology laboratory of the School of Science and Literature and are given every opportunity to demonstrate the functions of the different organs of the body by the aid of modern apparatus.

301 Theory and Practice. Class 3 hours. Credit 3.

302 Theory and Practice. Class 4 hours. Credit 4.

Theory and practice includes a study of the diseases of domesticated animals, their diagnosis and treatment as met in routine practice. This subject is taught for two years. In that length of time it is intended by means of lectures and clinics to acquaint the student with as great a variety of abnormal conditions as possible and instruct him in their diagnosis and treatment.

303 Clinical Diagnosis. Class 2 hours. Credit 2.

In presenting this subject, it is the intention of the instructor to condense, review and emphasize the methods used in diagnosing diseases.

304 Therapeutics and Toxicology. Class 4 hours. Credit 4.

Therapeutics is a study of the use of all agents that are of value in the treatment of diseases and the relief of pain. Thus it is the application of the previous course in materia medica, with the additional emphasis on the toxication of drugs and antidotal measures to be employed in combating them.

305 Surgery. Class 2 hours. Credit 2.**306 Surgery.** Class 3 hours. Credit 3.

Prerequisite: First and second-year anatomy.

The theory of veterinary surgery is given the third and fourth-year students in connection with the theory and practice of medicine and the hospital clinic.

Methods of restraint, the use of different anesthetics and the general principles of surgical technique are taught the first semester of the Junior year. The different surgical diseases are then studied and discussed.

The clinic offers practical demonstrations of the principles discussed in class.

307 Surgical Anatomy. Laboratory 4 hours. Credit 1½.

Prerequisite: Anat. 101, 102, 201, 202.

A review of the previous course, with special reference to the general topography and various surgical areas of the horse, ox, dog and pig.

Text: Comparative Anatomy, Sisson.

Reference: Surgical Anatomy, Share, Jones.

311 Special Pathology. Class 1 hour, laboratory 3 hours. Credit 2.

Prerequisite: Vet. Med. 205 and 206.

This work includes a study of disease processes in the different organs of the body and specific diseases. An introduction to post-mortem technique is given and, when autopsies are available, the student will be taught to apply his knowledge in a practical way.

Text: Veterinary Postmortem Technique, Crocker.

313 Clinic. Laboratory 7 hours. Credit 2½.**314 Clinic.** Laboratory 6 hours. Credit 2.**317 Therapeutics.** Class 3 hours. Credit 3.**319 Soundness.** Laboratory 2 hours. Credit ¾.

A knowledge of the special phases of soundness from a legal standpoint is of the greatest value to a veterinarian. He should be able to advise his clients regarding the significance of weaknesses and blemishes, their probable transmissibility by breeding, etc. The hospital clinic furnishes abundant material to make this a thorough course of study.

321 Restraint. Laboratory 2 hours. Credit ¾.

The student is taught how to confine animals for various surgical operations and manipulations. The hospital is equipped with operating table, stocks and casting harness for all surgical work.

401 Theory and Practice. Class 4 hours. Credit 4.

Prerequisite: 301-302.

402 Theory and Practice. Class 4 hours. Credit 4.

Prerequisite: Vet. Med. 301-302 and 311.

Four hundred and one and 402 deal with the different phases of infectious diseases, their diagnosis and control.

Texts for all courses are the same.

Text: Pathology and Therapeutics of the Diseases of Domesticated Animals, Hutyra and Marek.

Reference: Law, Hoare, Friedberger and Frohner.

403 Surgery. Class 3 hours. Credit 3.**404 Special Surgery.** Class 2 hours. Credit 2.

These courses are a continuation of the work of the previous year, and include all of the major operations.

Text: Veterinary Surgery, Merilatt, Vols. I, II, III, IV.

Reference: Share, Jones, Cadoit and Adams.

405 Dentistry. Class 1 hour. Credit 1.

A study of the teeth of the domestic animals by aid of bones and models, and a consideration of the cause of their defects; prevention and treatment of same.

406 Milk and Dairy Inspection. Class 1 hour, laboratory 2 hours. Credit 1½.

In this course, classwork includes a study of the secretion of milk, its chemical properties and bacteriology; transmission of diseases of man by milk; methods of handling milk from cow to the consumer, and methods of herd and dairy farm inspection. The laboratory work includes the more important physical and chemical bacteriological and microscopic milk tests.

Text: Principles and Practice of Milk Hygiene, Klein.

408 Laboratory Diagnosis. Laboratory 2 hours. Credit ¾.

This course will include practice in the ordinary diagnostic methods with which the veterinarian should be familiar. Special attention will be given to the diagnosis of parasitic troubles and bacterial infections. Some work in urine and milk analysis will be given.

410 Meat Inspection. Class 3 hours. Credit 3.

Meat inspection takes up a review of postmortem symptoms of different diseases of food-producing animals, especially those transmissible to man. The subject is of especial importance to students who contemplate entering the Government work of inspecting meat products after graduation. Side trips are taken to the packing houses where the work of inspecting meat products is in operation.

Text: Meat Hygiene, Mohler and Eichorn.

411 Obstetrics. Class 3 hours. Credit 3.

After a brief review of obstetrical anatomy the work is devoted largely to a consideration of the different abnormal conditions arising incident to parturition and the treatment.

Text: Veterinary Obstetrics, Williams.

- 412 Lameness and Shoeing.** Class 2 hours, laboratory 4 hours. Credit $3\frac{1}{3}$.

Diseases of the foot and the effect of shoeing on their prevention and treatment. The instruction is of especial importance to the city practitioner.

Text: Horseshoeing, Adams; Diseases of the Foot, Reeks.

- 414 Clinic.** Laboratory 6 hours. Credit 2.

No school of medicine is stronger than its clinic. Here the student comes in actual contact with the problems relating to the care of sick animals. Hospital accommodations are furnished, and squads of students are assigned patients as they are presented. This work tends to impress upon the student the practical phase of his previous training.

- 415 Clinic.** Laboratory 7 hours. Credit $2\frac{1}{3}$.

- 416 Jurisprudence.** Class 1 hour. Credit 1.

There are certain restrictions placed on the movements of live-stock from one State or country to another by the United States and State livestock sanitary commissions. Many other legal and ethical obligations are presented in the practice of the veterinarian. That he may deal intelligently with these matters, an attempt is made to outline them and their correct solution. In addition some of the fundamentals of business are outlined in the series of lectures given by different members of the Faculty of the School of Veterinary Medicine.

Description of Subjects Taught in the School of Agriculture

The following subjects are given to students in agriculture in order that they may become familiar with some of the more common diseases that every stock-owner must treat:

- 309 Veterinary Anatomy.** Class 2 hours, laboratory 2 hours. Credit $2\frac{2}{3}$.

A study of some of the practical points of the anatomy of domesticated animals.

- 310 Animal Diseases.** Class 2 hours, laboratory 2 hours. Credit $2\frac{2}{3}$.

The more common diseases of livestock are discussed in this course. The laboratory work is intended to teach the student simple operations and familiarize him with practical means of restraining animals for operative purposes. Hygiene and the disposal of animals dead of infectious diseases is brought out and special emphasis is placed on the administration of vaccines, uses of antiseptics etc.

THE SECONDARY SCHOOL

S. A. MARONEY, *Principal*
 J. H. CALDWELL, *Assistant Professor*
 J. O. MUNCIE, *Instructor*
 MRS. MARY E. MUSTAIN, *Instructor*
 STELLA PRIEST, *Instructor*
 E. B. NELMS, *Student Assistant*
 ORA A. BLACK, *Student Assistant*
 D. M. ROBERTS, *Student Assistant*
 O. A. GILES, *Student Assistant*
Vocational Teachers of College Departments

The Secondary School includes:

1. NON-VOCATIONAL COURSE—

A standard high school for college entrance or general culture.

2. VOCATIONAL COURSES—

- (1) Vocational Agriculture, two years.
- (2) Vocational Home Economics, two years.
- (3) Four Trades Courses (auto mechanics, cabinetmaking, carpentering, machinshop practice), two years.
- (4) Teachers Course (arranged to lead to two-year State certificate).

Vocational Courses

The vocational courses (except teachers' course) are designed and offered under standards set by the Federal and State Vocational Boards. Their purpose is to prepare for real efficiency in the lines offered. To that end the work is handled on a real practice and production basis as far as possible. Federal funds and supervision provided by the Smith-Hughes Law insure the usefulness of these courses. Completion of common school is required for admission if vocation course is used for college entrance. (See particulars under each heading.)

The teachers' course appears in combination with non-vocational course. (See outline.)

The Non-Vocational Courses

This course contains the standard requirements for college entrance and a number of high school electives. It provides for

foundational work, and at the same time allows the student to choose a number of practical branches according to taste and purpose.

The requirements for a first-grade two-year State certificate are met by including subjects specified in outline.

While other work is being carried, two lessons per week in piano, voice, violin or wind instruments may be taken, for which a nominal charge is made for use of instrument. Students in the department have full privileges of College library, dormitories, laboratories, shops and many College activities as well as the free services of the official College physician. No tuition is charged for any course. Male students must take military training. Physical education is required of both boys and girls. Credit of one-half of hours is allowed for military and physical training and other practice hours. Military training may be dropped when total hours for College is finished or may be continued voluntarily.

Recitation periods are fifty minutes long. Penmanship must be taken if the student is not proficient. Credit examinations are given in all branches. Grades brought from approved high schools are accepted.

Full Freshman standing in College is obtained upon completion of 15 units (conditional with 14 units), which must include first three years as formulated unless a greater part of such units (8) consist of credits accepted from other high schools. Besides required branches, the complement of units comprises such subjects as will strengthen the student for the College course in view or for teacher's certificate requirements. A number of trades practice courses are offered to fill out the 15 units. These are found in Business Training and Vocational courses.

The course is so administered that it can be completed in from three to four years, according to amount of extra work which stronger and mature students are permitted to carry. The time required to complete it may also be shortened by grades accepted from high schools, by passing credit examinations, and by attendance during Summer Sessions.

Entrance to the Secondary School requires: First, that applicant be 16 years of age, if residing where a four-year high school is maintained, or 14 years of age if no such high school is main-

tained at his home. Second, that a diploma of graduation, or certificate of promotion from the common schools of the State be presented, or that applicant pass an examination in reading, spelling, penmanship, geography, United States history, grammar and arithmetic, as prescribed by law. Maturity and capacity of the student to do the work are given due weight.

OUTLINE

FIRST YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Cl.	Pr.		Cl.	Pr.
English 11	5		English 12	5	
Algebra 11	5		Algebra 12	5	
Physiology 11	3	(2)	Arithmetic 12	5	
Freehand Drawing 11		(4)	Woodwork 12 (Boys)		(4)
Woodwork 11		(4)	Mechanical Drawing 12 (Boys)		(2)
Mechanical Drawing 11		(2)	D. A. 12 (Basketry) (Girls)		(4)
Physical Education 11		(3)	Freehand Drawing 12		(4)
Military (Boys)		(3)	Military (Boys)		(3)
Penmanship 11		(2)	Physical Education 12		(3)
			Penmanship 12		(2)

SECOND YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Cl.	Pr.		Cl.	Pr.
English 21	4		English 22	4	
Plane Geometry 21	5		Plane Geometry 22	5	
Ancient History 21	5		Modern History 22	5	
Woodwork 21		(4)	Woodwork 22		(4)
and			or		
Mechanical Drawing 21		(2)	Forge 22 (Boys)		(4)
or			or		
D. A. 21 Sewing (Girls)		(4)	D. A. 22 Sewing (Girls)		(4)
Vocal Music 21 (Teachers)	1	(1)	Vocal Music 22 (Teachers)	1	(1)
Physical Education 21		(3)	Physical Education 22		(3)
Military (Boys)		(3)	Military (Boys)		(3)

THIRD YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Cl.	Pr.		Cl.	Pr.
English 31	4		English 32	4	
Physics 31 (S. & L., Engr.)	3	(4)	Physics 32 (S. & L., Engr.)	3	(4)
Physics 33 (all others)	3	(4)	Physics 34 (all others)	3	(4)
American History 31	4		American Government 32	4	
*Agriculture (Teachers)			*Agriculture (Teachers)		
Latin, French or Spanish 31			Latin, French or Spanish 32		
(S. and L.)	4		(S. and L.)	4	
Algebra 31	3		Solid Geometry 32	4	
or			or		
D. S. 31 (Foods)	1	(4)	D. S. 32 (Foods)	1	(4)
Physical Education 31		(3)	Physical Education 32		(3)
Military (Boys)		(3)	Military (Boys)		(3)

*1 Field Crops 11 or Livestock 11 in fall; Field Crops 12 or Vegetable Gardening 12 in spring. (See Vocational Agriculture).

FOURTH YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Cl.	Pr.		Cl.	Pr.
Latin, French or Spanish 201			Latin, French or Spanish 202		
(Engr.)	3		(Engr.)	3	
Education 101 (Teachers)	2		Education 102 (Teachers)	2	
Education 201 (Teachers)	2		and		
Arithmetic 41 (Engr.)	5		Education 202 (Teachers)	2	
Oklahoma History and Civics 41	1		Geography 42 (Teachers)	3	
Military		(3)	Military		(3)

SECOND SEMESTER

SECOND SEMESTER

	Cl.	Pr.		Cl.	Pr.
Arithmetic 41	5		Geography 42	3	
Algebra 31	3		Solid Geometry 32	4	
Woodwork 21	(4)		Woodwork 22	(4)	
and			D. A. 12 (Basketry)	(4)	
Mechanical Drawing 21	(2)		Forge 22	(4)	
Typewriting	5 or 10 hrs.		Typewriting		
Shorthand			Shorthand		
Music—Piano, Voice, Violin, etc			Music—Piano, Voice, Violin, etc		
College or Vocational Courses			College or Vocational Courses		
Approved			Approved		
Languages 31, 201			Languages 32, 202		

Two years in the same language are required to enter engineering.
Electives to make 15 units.

SUBJECTS

English 11, 12. Class 5 hours.

First year book for composition theory and grammar. Writing two themes a week for individual correction and revision. Two to three classics each semester. Penmanship must be taken separately if lacking. Spelling included.

English 21, 22. Class 4 hours.

Composition, theory and practice. Three or more classics each semester. Oral interpretations.

English 31, 32. Class 4 hours.

English 32 comprises classics and composition; English 31 is good course in English grammar. Some classics and composition.

Algebra 11, 12. Class 5 hours.

The solution of practical problems included in the aim. Pure algebra as foundation mastered thoroughly. Graphic method in equations stressed. Through quadratics and review.

Text: First Principles of Algebra, Revised, Slaught and Lennes.

Algebra 31. Class 3 hours.

Requires Algebra 11, 12.

Text: Same as for 11 and 12.

Alternate with D. S. 31 (Foods).

Physiology 11. Class 3 hours, laboratory 2 hours.

After physiology in common school. Taught by Science Department of College, with equipment of charts, models and apparatus. One aim is training in laboratory methods and note-taking and scientific attitude. Lays foundation for later work in science. Gives grade on teacher's certificate.

Text: Advanced Physiology, Conn and Buddington.

Arithmetic 12. Class 5 hours.

Common operations. Principles rather than short-cut calculations. The student's language and mental method looked after. Use made of equation.

Required of all students.

Text: Complete Arithmetic, Wentworth and Smith.

Woodwork, or Manual Training. Shop 4 hours.

Course 11 required of boys and girls. Girls may take D. A. (basketry) 12 instead of Woodwork 12. Mechanical Drawing 2 hours, required with Woodwork 11 and may be taken with 12. Course 21 is

mostly turning; 22 is cabinetmaking. When personal proficiency is acquired, many useful articles for the home are made. Courses 11, 12, 21, 22 fulfill the manual training requirements for teacher's certificate course in two years.

See Manual Training Course, College.

Freehand Drawing 11. Practice 4 hours. Credit 1-5 unit.

Art work is made valuable to the student through development of his power to see, to appreciate and to recreate. In this course the student is trained to care for appearance of things and to become more efficient in the doing of things.

Motif for work—Nature interpretation and color harmony developed through medium of crayon.

Freehand Drawing 12. Practice 4 hours. Credit 1-5 unit.

Course is planned to give expression through observation of natural forms and to aid color through appreciation of naturally colored forms. Perspective principles studied and applied to drawing of still life forms; color harmony and laws of composition developed in the drawing representative of nature and nature forms.

Mechanical Drawing 11, 12. Class 2 hours each.

Reinforcement of courses in woodwork taken at the same time. Closely correlated with it and taught by Manual Training Department.

Domestic Art 12 (Basketry). Class 4 hours.

Basketry, cord, raffa and reed work. Articles made are adapted for teaching handwork in the grades.

Domestic Art 21, 22 (Sewing). Class 4 hours.

Plain stitches applied to various articles as towels, sewing aprons, etc. Patching and darning. Machine sewing. Seams. Simple undergarments. Study of textiles and fibers used.

Plane Geometry 21, 22. Class 5 hours.

After Algebra 12.

Text: Plane Geometry, Stone and Millis. Parts I and II for courses 21 and 22, respectively.

Ancient History 21. Class 5 hours.

First half of a year's survey of whole field of history. Oriental, Egyptian, Grecian, Roman and Medieval Europe to 1789. Making of historical maps and notebooks required.

Text: Outlines of European History, Part I, Robinson and Breasted.

Modern History 22. Class 5 hours.

Continuation of 21. From beginning of French Revolution to date. Completes a year of general history which is accepted on a teacher's certificate. Maps and notes.

Text: Outline of European History, Part II, Robinson and Breasted.

Forge 22. Shop 4 hours.

First work in blacksmithing. Iron and steel. Drawing, upsetting, welding and tempering. (Same as 12. See Vocational Agriculture.)

Vocal Music. 2 hours.

Courses 21, 22, 31, 32, the series covering two years. Essential work for teachers. Twenty-one and 22 are prerequisite for Public School Music.

Physics 33. Class 3 hours, laboratory 4 hours.

Required of all students not entering College Engineering or Science and Literature.

Prerequisite: Alg. 11 and 12.

Covers in an elementary way Mechanics and Heat.

Text: Physics, by Mann and Twiss.

Physics 34. Class 3 hours, laboratory 4 hours.

Required of all students not entering College Engineering or Science and Literature.

Prerequisite: Physics 31.

A continuation of Physics 31, covering Electricity, Magnetism and Light.

Text: Physics, by Mann and Twiss.

Physics 31. Class 3 hours, laboratory 4 hours.

Required of all students who expect to enter regular courses in Engineering and Science and Literature.

Prerequisite: Alg. 11 and 12; Plane Geom. 21 and 22.

Covers Mechanics and Heat.

Text: Physics With Applications, by Carhart and Chute.

Physics 32. Class 3 hours, laboratory 4 hours.

Required of all students who expect to enter regular courses in Engineering and Science and Literature.

Prerequisite: Physics 33 and its prerequisites.

Covers Electricity, Magnetism and Light.

Text: Physics With Applications, by Carhart and Chute.

Oklahoma History and Civics 41. Class 1 hour.

The unique story of Indian consolidation and settlement of Indian Territory and Oklahoma. Survey of State in education, industry and government. Many maps and supplementary matter used.

Required for State life certificate.

American History 31. Class 4 hours.

High school history. Gives grade on teacher's certificate.

American Government 32. Class 4 hours.

Prepares to teach in common schools. Pedagogy of subject given. Course composed of two parts, how the Government operates and how it is organized.

Text: The New American Government, Young.

Latin 31, 32. Class 4 hours. Credit $\frac{1}{2}$ unit each.

Drill on the essentials of Latin grammar, acquiring of vocabulary, reading stories from Roman history, anecdotes and fables.

Text: (1) Latin Lessons, Smith; (2) Gradatim.

French 31, 32. Class 4 hours. Credit $\frac{1}{2}$ unit each.

Essentials of French grammar, with the more common irregular verbs. Reading of about one hundred pages of easy prose. Careful training in pronunciation.

Text: Fraser and Squair's Short Course; Francois and Girard. Simple French.

Spanish 31, 32. Class 4 hours. Credit $\frac{1}{2}$ unit each.

A practical and thorough course conforming to the most advanced methods of teaching; careful treatment of pronunciation. The student realizes that he is learning a living language.

Text: A Brief Spanish Grammar, Ingraham and Edgren; Espana Printoresea Dorado.

(For courses 101 and 102 in second year of language, see College.)

Physical Education (Men). Class 3 hours. Three years' credit given and required.

Course 11. Free exercises, games, athletic dancing and mass class drills. A portion of each class period is devoted to talks on exercises, diet, rest, work and importance of correct hygienic habits.

Course 12. Elementary apparatus, work on buck and mats, out-of-door basketball, and track and field work. Hygienic talks.

Course 21. Mass drills with and without hand apparatus. Elementary work on horse and parallels. Rhythmic exercises and mat work. Hygienic talks.

Course 22. Mass drills with hand apparatus; more advanced work on horse and parallels; games, track and field work. Hygienic talks.

Course 31. Mass drills. Elementary work on horizontal bar and flying rings, with systematic graded work on the horse and parallels. Hygienic talks.

Course 32. Mass drills. Intermediate graded exercises on all apparatus. Tumbling. Athletic dances and games. Track and field work. Introductory lectures on physical education.

Physical Education (Women). Class 3 hours.

Courses 11, 12, 21, 22, 31, 32, required.

Calisthenics and gymnastics. Aims to give thorough work in graded gymnastics by means of free exercises with and without hand apparatus. Elementary folk play. Games and marching. Handled by College Department of Physical Education for Women.

Military.

Three times a week. Counts one-half of hours in estimate for College entrance. Military science instruction given and cadet drill. Cadets in the band do not drill.

Geography 42. Class 3 hours.

High school geography. Answers purposes of teachers for common schools.

Domestic Science 31, 32 (Foods). Class 1 hour, laboratory 4 hours.

A popular, practical course in cooking and its materials to meet the needs of public school teachers, housewives and students in any course who desire to take it. Does not require chemistry as a prerequisite. Grade applies on teachers certificate.

Education 101—Psychology.

Edu. 201—History of Education.

Edu. 102—Principles of Education.

Edu. 202—Methods and Management.

All required for two-year State certificate.

These constitute the required one year in pedagogy for two-year State certificate. For description, see School of Education in College.

Geography 42. Class 3 hours, practicum 4 hours. Credit $\frac{3}{4}$ unit.

Mostly commercial geography.

Required for teachers.

Arithmetic 41. Class 5 hours. Credit $\frac{1}{2}$ unit.

Prerequisite: Arith. 12 or equivalent.

Required of engineers.

VOCATIONAL HOME ECONOMICS

(Two years)

This course is offered to give practical training in home duties and personal efficiency for girls who do not wish to enter a College course. Courses in piano, voice, violin and art are open to students. A certificate of completion is issued. The two years' work may be applied as entrance (above 8 units) to the A. and M. College.

FIRST YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Cl.	Pr.		Cl.	Pr.
English 11	5		English 12	5	
General Science 11	3	(4)	General Science 12	3	(4)
Industrial Drawing 11		(4)	Industrial Drawing 12		(4)
H. E. 11, Plain Sewing		(4)	H. E. 12, Garmentmaking		(4)
H. E. 13, Sanitation	2	(2)	H. E. 14, Millinery		(4)
H. E. 15, Food Study and Cookery	1	(4)	H. E. 16, Food Study and Cookery	1	(4)
Physical Education		(3)	Physical Education		(3)

SECOND YEAR

FIRST SEMESTER			SECOND SEMESTER		
	Cl.	Pr.		Cl.	Pr.
English 21	4		English 22	4	
Arithmetic 21	5		Physiology and Hygiene 22	3	(2)
H. E. 21, House Furnishing	2	(2)	H. E. 22, Home Management	2	(4)
H. E. 23, Dressmaking and Textiles	1	(4)	H. E. 24, Dressmaking and Textiles	1	(4)
H. E. 25, Elements of Nutrition	2	(4)	H. E. 26, Home Nursing	2	
Physical Education		(3)	Physical Education		(3)

SUBJECTS**Industrial Drawing 11.** Practice 4 hours.

Principles of design and harmony of color developed through decorative arrangement and artistic rendering from observation of nature forms.

Industrial Drawing 12. Practice 4 hours.

Principles of constructive design and color applied to problems in industrial art, including projects in paper and cardboard, cloth and other mediums.

English 11, 12, 21, 22.

Same as non-vocational courses.

General Science 11, 12. Class 3 hours, laboratory 4 hours.

Same as in Trades and Vocational Agriculture.

Physiology and Hygiene 22. Class 3 hours, laboratory 2 hours.

Same course and text as in non-vocational course. Taught by School of Science and Literature.

Arithmetic 21. Class 5 hours.

Vocational arithmetic. Equivalent in credit to Arithmetic 12 in non-vocational course.

H. E. 11, Plain Sewing. Laboratory 4 hours. Credit 2.

The principles of hand and machine sewing applied to household linens and garments.

H. E. 12, Garmentmaking. Laboratory 4 hours. Credit 2.

Continuation of Home Economics 11.

Text: Shelter and Clothing, Kinne and Cooley.

H. E. 13, Sanitation. Class 2 hours, laboratory 2 hours. Credit 3.

Study of laws of sanitation and their direct application in care of house.

Text: Household Sanitation, Talbot.

H. E. 14, Millinery. Laboratory 4 hours. Credit 2.

A course in home millinery, including making and trimming of simple hats.

H. E. 15, Food Study and Cookery. Class 1 hour, laboratory 4 hours. Credit 3.

Study of foods covering source, purchase, storage and cookery. Practice in the laboratory with special attention to cost and service.

H. E. 16, Food Study and Cookery. Class 1 hour, laboratory 4 hours. Credit 3.

Continuation of Home Economics 15.

Text: Foods and Household Management, Kinne and Cooley.

H. E. 21, House-Furnishing. Class 2 hours, laboratory 2 hours. Credit 3.

Practical course in house-furnishing. Special reference to the economic features.

H. E. 22, Home Management. Class 2 hours, laboratory 4 hours. Credit 4.

Study of problems connected with care and expense of household. Simple method of keeping household accounts.

H. E. 23 Dressmaking and Textiles. Class 1 hour, laboratory 4 hours. Credit 3.

Study of manufacture, adulteration and use of various kinds of cloth. The laboratory work covers the use of patterns and the making and renovating of garments.

H. E. 24 Dressmaking and Textiles. Class 1 hour, laboratory 4 hours. Credit 3.

Continuation of Home Economics 23.

Text: Household Textiles, Gibbs.

H. E. 25, Elements of Nutrition. Class 2 hours, laboratory 4 hours. Credit 4.

Study of fundamental principles of nutrition and their application in the preparation and service of meals.

H. E. 26, Home Nursing. Class 2 hours. Credit 2.

Includes study of what to do in emergencies; the care of the sick, and the general care of the sickroom.

TRADES COURSES

These two-year courses are given, as nearly as possible, on a production basis and fit men for actual work in their chosen lines. They have been established by the State and Federal Boards of Vocational Education and are supported by State and United States funds provided by the Smith-Hughes Law. The entire engineering plant of the College is available for this instruction. It is believed that a great many students will enter these courses. The two years of work may be used for entrance to A. and M. College.

TRADES COURSES OUTLINE

FIRST YEAR

FIRST SEMESTER

	Cl.	Pr.
English 11	5	
General Science 11	3	(4)
Mechanical Drawing 13		(4)
Auto Mechanics 11		(16)
or		
Machinshop Practice 11		(16)
or		
Cabinetmaking 11		(16)
or		
Carpentering 11		(16)
Military		(3)

SECOND SEMESTER

	Cl.	Pr.
English 12	5	
General Science 12	3	(4)
Mechanical Drawing 14		(4)
Auto Mechanics 12		(12)
and		
Forge 12		(4)
or		
Machinshop Practice 12		(16)
or		
Cabinetmaking 12		(16)
or		
Carpentering 12		(16)
Military		(3)

SECOND YEAR

FIRST SEMESTER

	Cl.	Pr.
English 21	4	
Citizenship 21	1	
Shop Mathematics 21	4	
Mechanical Drawing 23		(6)
Auto Mechanics 21		(16)
and		
Forge 23		(4)
Machinshop Practice 21		(16)
or		
Cabinetmaking 21		(16)
Carpentering 21		(16)
Military		(3)

SECOND SEMESTER

	Cl.	Pr.
English 22	4	
Citizenship 22	1	
Shop Mathematics 22	4	
Mechanical Drawing 24		(6)
Auto Mechanics 22		(16)
or		
Machinshop Practice 22		(16)
or		
Cabinetmaking 22		(16)
Carpentering 22		(16)
Military		(3)

DESCRIPTION OF COURSES

Mechanical Drawing 13. Practice 4 hours.

The elemental principles and processes of making accurate working drawings. All work is done from models. Applied drawing.

Mechanical Drawing 14. Practice 4 hours.

The making of working drawings continued; threads, machine parts, tracing and blueprinting are included.

Mechanical Drawing 23. Practice 6 hours.

This course is applied to the various trades courses as follows:

Machinshop Practice.—Students make drawings of machines, both detailed and assembled.

Text: Mechanical Drafting, Miller.

Auto Mechanics.—Make working drawings of gasoline and auto engines and parts.

Text: Automobile Repairing Made Easy, Page.

Carpentry.—Students begin architectural drawings of house construction.

Text: Architectural Drawing, Windoes and Campbell.

Cabinetmaking.—Students make working drawings of cabinet construction and inside finish.

Mechanical Drawing 24. Practice 4 hours.

A continuation of Mechanical Drawing 23.

Shop Mathematics 21. Class 4 hours.

Arithmetic as applied to shop usages.

Text: Shop Mathematics, Breckenridge, Mersereau and Moore.

Shop Mathematics 22. Class 4 hours.

A continuation of Shop Mathematics 21 with a study of some of the fundamental formulas of mathematics applied to shop practice.

Text: Shop Mathematics, Breckenridge, Mersereau and Moore.

Forge 12. Class 4 hours.

Same as Forge 12 in Vocational Agriculture.

Forge 23. Shop practice 4 hours.

Prerequisite: Forge 12.

Soldering, brazing and oxy-acetylene welding, toolmaking and types of casehardening.

Text: Automobile Welding with Oxy-Acetylene Flame, Dunham.

Trade-Training Work Outline

In all trade-training courses the student is required to take Woodwork 11 and 12 the first year.

Auto Mechanics 11. Auto Repairing. First semester 12 hours.

Taking down engines, reassembling them and adjusting all parts.

Text: Automobile Repairing Made Easy, Page.

Woodwork 11. 4 hours.

Text: Automobile Repairing Made Easy, Page.

Auto Mechanics 12. 8 hours.

General repairing of transmission, rear axle, steering gear, wheels, etc.

Forge 12. 4 hours.

Woodwork 12 and Forge 12. (See writeup elsewhere.)

Auto Mechanics 21. Auto repairing 12 hours. Machinshop 4 hours. Forge 23, 4 hours.

Magneto, starting ignition and lighting, carburetor adjustment and study, running in bearings, engine repair and replacement of parts. Machinshop work is used in auto repairing. Forging includes soldering, brazing and oxy-acetylene welding.

Text: Modern Starting, Lighting and Ignition Systems, Page.

Auto Mechanics 22. Auto repairing 12 hours, machinshop 4 hours.

General auto repairing. In this semester students will work on repairing of cars and will make the usual student labor charge for their work, thus obtaining some remuneration for their labor. Machine shop applied to auto repairing.

Machinshop Practice 11. Machinshop 16 hours.

The use of lathe, shaper and planer on exercise work.

Text: Machinshop Practice, Kaup.

Machinshop Practice 12. Machinshop 12 hours, Forge 12, 4 hours.

In this semester the student begins work on a productive basis. Several glue presses and lathes are to be built and machinshop practice students will do all of the machine work on these. Forging 12 (see writeup elsewhere).

Text: Same as for first semester.

Machinshop 21. Machinshop 12 hours, Forge 23, 4 hours.

The work of this semester consists entirely of toolmaking, involving use of milling machine and grinder, and the heat treatment of steel in annealing, casehardening, etc.

Text: Hardening, Tempering and Forging of Steel, Woodworth.

Machinshop Practice 22. Machinshop practice 16 hours.

Machine work on productive basis with cost of production of complete machine figured.

No text.

Carpentry 11. Carpentry 12 hours.

The classes in carpentry have always been supplied with work by the College. Garages, chicken houses, barns, etc., are built, giving the student practical experience.

Text: Carpentry, Griffith.

Carpentry 12. Carpentry 16 hours.

Same as first semester.

Carpentry 21. Carpentry 16 hours.

When the class in carpentry reaches a sufficient enrollment the Department of Shop Practice will contract to build a cottage near the College, and in this way will furnish students in the carpentering course practical and profitable experience.

Carpentry 22. Carpentering 16 hours.

Continuation of third semester.

Cabinetmaking 11, 12, 21, 22.

All Semesters.—The College furnishes the shops with sufficient cabinetmaking work to keep many boys busy on productive work, such as storage cases, exhibit cases, chairs, desks and many other

types of cabinet furnishing. After a student reaches a nominal proficiency in his work he is paid for his time spent on productive work.

Text: Woodwork for Secondary Schools, Griffith.

English 11, 12. 5 hours.

English 21, 22. 4 hours.

Content of courses the same, and entrance credit to College the same as in Vocational Home Economics, Vocational Agriculture and Non-Vocational courses.

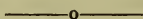
General Science 11, 12. Class 3 hours, laboratory 4 hours.

Same as in Vocational Home Economics and Vocational Agriculture. Credit of each for College entrance $\frac{1}{2}$ unit.

Citizenship 21, 22. 1 hour each.

Current news, civics, economic questions of State and Nations. News dailies and magazine literature.

No text.



VOCATIONAL AGRICULTURE

(Two years)

This course is designed to fit for diversified farming in Oklahoma. It is in no sense a specialized course. Enough of livestock, agronomy, soils, poultry, etc., is given to insure success. The foundations will be laid and the interest stimulated may be sufficient to cause students to go on in their chosen specialties. The work is organized, supervised and supported by the State and United States Government under the Smith-Hughes Law. Only expert instructors handle the classes. The work done may be applied (above 8 units) as entrance to the A. and M. College.

The Experiment Station greenhouse, hotbeds, cold frames, and about forty acres of land planted with various varieties of fruits and vegetables, furnish excellent opportunity for giving practical work in horticulture.

OUTLINE OF COURSE

FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Cl. Pr.		Cl. Pr.
English 11	5	English 12	5
General Science 11	3 (4)	General Science 12	3 (4)
Field Crops 11	2 (4)	Field Crops 12	2 (4)
Livestock 11	2 (4)	Vegetable Gardening 12	2 (4)
Woodwork 11	(4)	Forge 12	(4)
Physical Education	(3)	Physical Education	(3)
Military	(3)	Military	(3)

SECOND YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Cl. Pr.		Cl. Pr.
English 21	4	English 22	4
Farm Arithmetic 21	4	Farm Accounts and Management 22	2 (4)
Dairying 21	2 (4)	Animal Diseases 22	2 (2)
Soils and Fertility 21	2 (4)	Entomology 22	3 (2)
Fruit Growing 21	2 (2)	Farm Machinery 22	1 (4)
Farm Structures 21	(2)	Livestock 22	2 (4)
Poultry 21	2 (4)	Military	(3)
Military	(3)		

DESCRIPTION OF COURSES

Home Vegetable Gardening 12. Class 2 hours, laboratory 4 hours.

This course includes the general principles of vegetable culture, and a study of the home garden.

Home Fruit-Growing 21. Class 2 hours, laboratory 2 hours.

A course dealing with the general principles of fruit-growing, including a study of cultural requirements, propagation and the relative importance of the different fruits for home use.

DESCRIPTION OF SUBJECTS

Entomology 22. Class 3 hours, laboratory 2 hours.

Instruction will be given in lectures, consequently no textbook will be required. The habits of injurious and beneficial insects will be explained. Methods for controlling the injurious forms will be tested in practice as far as conveniences will permit. Methods for developing beneficial forms will be taught. Primary practice in beekeeping will be given.

Animal Diseases 22. Class 2 hours, laboratory 2 hours.

It will be the purpose of this course to acquaint the student with the more common diseases of farm animals without going into scientific detail. The prevention of disease will receive more attention than the actual treatment. Laboratory work will consist of observation, assistance and the taking of notes on animals undergoing treatment at the College Veterinary Hospital and vicinity.

Text: Common Diseases of Farm Animals, Craig.

Dairying 21. Class 2 hours, laboratory 4 hours.

An elementary course in dairying, including the testing of milk and cream by the Babcock test, the operation of cream separators and farm churning of butter, cottage cheese and ice cream-making, a study of dairy cows, their feeding and management, and the producing and handling of market milk.

Text: Dairy Farming, Michels.

Poultry 21. Class 2 hours, laboratory 4 hours.

The work in this course will cover all phases of poultry work necessary for practical poultry-raisers, either on the farm or in town. A study of breeds and types will be made from the utility standpoint. Feeding, incubation and brooding, housing, poultry diseases, marketing of poultry and eggs, caponizing, picking and killing, and study of the egg will be considered. Special stress will be put upon factors which deal primarily with egg production.

English 11, 12, 21, 22.

Same as in non-vocational courses.

General Science 11, 12. Class 3 hours, laboratory 4 hours each.

In Vocational Agriculture, Trades and Vocational Home Economics.—Content the same for all. Laboratory.—Elementary Physics, chemistry and biology. Unity of course psychological rather than logical. Limited to applied science as much as possible.

Forge 12, 22. Shop practice 3 hours each.

First blacksmithing—heating, shaping and welding. Tempering and hardening of steel. Pipefitting and drillpress work. Covered in lectures and practice. No. 12 is the same as 22 in non-vocational courses.

Farm Structures 21. Shop practice 2 hours.

Study of various types of buildings for farm use—dwellings, barns, hog houses, chicken houses, silos, etc. Drawings are made of types studied, and structural details mastered. Models examined on College farm.

Agronomy

This work will be given after a monthly sequence plan, adapted to seasonal conditions in Oklahoma. The work will be made as practical as possible, and the classwork will be greatly vitalized by having time and material at hand for practical work. These subjects in agriculture being presented at the time the principles are practiced on the farms, an opportunity will be afforded the students to do practical work on the farms.

Field Crops 11. Class 2 hours, laboratory 4 hours.

Practical lessons will be given in harvesting, storing, seedbed preparation, planting and cultivating the leading crops of Oklahoma. Much time will be given to grain judging, seed selection, seed testing and treatment for smut.

Text: Productive Farm Crops, Montgomery.

Field Crops 12. Class 2 hours, laboratory 4 hours.

This class is a continuation of Field Crops 11.

Soils and Fertility 21. Class 2 hours, laboratory 4 hours.

Attention will be paid to the fundamental principles underlying soil management; study will be made of how plants feed and grow; properties of the soil; plant food in the soil; conservation of soil fertility; crop rotation; barnyard manure; humus; fall plowing and testing soil for acidity.

Text: Soils and Soil Fertility, Whitson and Walster.

Farm Accounts and Management 22. Class 2 hours, laboratory 4 hours.

Simplified methods of keeping farm accounts and records will be given, including stock and crop accounts, expenses and receipts, which will enable the farmer to determine his income. Study is made of points to be considered in the selection of the farm, types of farming, planning and arrangement of the farmstead, the fields and crop rotations. Special emphasis is laid on the principles underlying suc-

cessful management of the farm business in order to receive the greatest continuous profit from the farm.

Text: Simplified Farm Account Record Book, Hoke and Beeson; Farm Management, Andrew Bass.

Farm Machinery

Farm Machinery 22. Class 1 hour, laboratory 4 hours.

This course consists of an elementary study of the construction of and best methods of operating the various farm implements used in seedbed preparation, cultivation, seeding and harvesting. A study is made of the various power-driven machines on the farm—the grinder, sheller, ensilage-cutter, tractor, thrasher, lighting plants and home water supply systems.

Livestock 11. Class 2 hours, judging 4 hours.

This course is intended to give the student an insight into the business of judging animals and by actual practice to acquaint him with the good points of the various classes of livestock. The course is somewhat general. Some time will be given to market types, and a short study will be made of the production of correct market types of animals.

No text.

Livestock 22. Class 2 hours, judging 4 hours.

This course gives the student a training in breed types of animals. The student studies the history of our important breeds of animals, and with the good livestock of the Animal Husbandry Department before him, he gets acquainted with the types and characteristics of the more important breeds.

Text: Animal Husbandry for Beginners, Plumb.

OTHER DEPARTMENTS

DEPARTMENT OF MUSIC

BOHUMIL MAKOVSKY, *Director*
Instructor in Wind Instruments and Band Conductor.
 JANE PORTER SLOSS, *Instructor in Piano*
 KATE VERMILLION, *Instructor in Piano*
 VIVIAN BRENGLE, *Assistant in Piano*
 MAIZEE RUE BRIDGES, *Instructor in Voice*
 C. J. FARNSWORTH, *Instructor in Piano and Voice*
 EDITH E. BRATTON, *Instructor in Violin*

Courses in Music

	Hrs.	Pr.	Cr.
1 Piano	1		1
2 Voice	1		1
3 Violin	1		1
4 Wind or Band Instruments	1		1
5 Public School Music	2		2
6 Music Theory or Harmony		2	$\frac{2}{3}$
7 Choral Practice		2	$\frac{2}{3}$
8 Band or Orchestra, Junior or Senior		2	$\frac{2}{3}$

Students should register by numbers.

Music makes broad claims upon the attention of students because of its generally recognized educational value, its cultural influence on the home life of the people, and its professional claims upon the more talented students of music. The instruction in this department tends toward the musical education and training of a large portion of the student body.

Accomplished musicians are always in demand as directors, singers, teachers, accompanists and organists for church, concert and public school music work. The Music Department offers earnest students the opportunity to acquire scholarly musicianship.

As a matter of College policy, students will not be allowed to undertake music to the exclusion of other subjects, since it is the purpose of the College to distribute these studies to the greatest possible number of students attending this institution, without offering university or conservatory courses therein. Students may take only one course in music during any term.

The following courses enable the student to obtain a comprehensive and practical knowledge of music and to acquire skill and power in interpretation. The time required for completing a

course will depend upon previous preparation, the talent, ability and character of the work of each student, but all have the privilege of advancing as rapidly as is consistent with good work.

COURSES IN VOICE CULTURE

Elementary. Two lessons per week.

Prerequisite: One year's work in piano or sight-reading.

Exercises are given for deep breathing and breath control; for purity of production, freedom of action and blending of the registers, correct attack and resonance, pure vowel production and distinct articulation.

Intermediate. Two lessons per week.

This course gives great attention to tone placing, elements of style and phrasing, staccato, legato and portamento delivery, and exercises tending to the greater flexibility of the voice. Songs of medium grade freely used.

Advanced. Two lessons per week.

This course is devoted to a study of tone color, agility, and all musical ornaments—trill, turn and gruppetta, appoggiature, acciacatura, mordente—mezza-di-voce, phrasing and style, and advanced teaching by means of difficult exercises and songs, recitatives and arias from opera and oratorio.

All students in the elementary voice class are urged to attend the sight-reading class unless excused by the Director. Attendance at all recitals is required of every student. When requested, students in any grade must sing in recital and from memory.

COURSE IN PUBLIC SCHOOL MUSIC METHODS

Credit for work in this subject at some college or state normal school will be given, but such credit should be claimed before entering the Senior year.

This course is carefully classified for each of the grades in the public schools, the work being outlined to develop the vocal ability and musical education of the pupils to suit the particular condition of the mind and the voice of the child at the average age in each grade. Advanced work is given for those desiring special preparation. This outline is somewhat as follows:

Rote songs for little folks. Study the 'staff', 'notes', 'scale'. Location of 'do', or the keynote, in nine different keys. Sight-reading and singing, by syllable and by letter. Much attention given to tone quality and rhythm. Complete analysis of songs—as to key signature, meter signature, tempo signs, marks of expression, the different values of notes used, etc. Written work from oral dictation of tones, syllables or letters. Written work from dictation of rhythm. Transposition of songs into different keys. Special practice in music class conducting. Singing at sight, rounds, and two, three and four-part songs. Thorough practice writing and singing major, minor and chromatic scales. "Spelling" and "pronouncing" different triads or chords. A little study of the elements of harmony.

PIANO COURSE

Elementary.

Exercises for position and development of the finger, hand and arm muscles. Scales, chords and arpeggios in simple forms. Studies by Burgmuller, Concone and others. Easy pieces and sonatinas.

Intermediate.

Major and minor scales and arpeggios. Suitable technical exercises. Selections from Czerny, Op. 299 and 740. Octave studies by Wilson G. Smith, Williams, Low, etc. Heller Studies, Op. 47, 46, 45. Mendelssohn's Songs Without Words. Bach, two-part inventions. Sonatas by Haydn, Mozart and Beethoven. Pieces by Spindler, Godard, Lack, Grieg, Schumann, Chaminade, Nevin, etc.

Advanced.

A systematic study of the scales and arpeggios in all forms. Suitable technical exercises. Czerny, Op. 740; Cramer-Bulow Studies, etc. Octave studies by Kullack, Phillip and others. Bach Three-Part Inventions and Well Tempered Clavichord. Beethoven sonatas. Chopin preludes, etudes, nocturnes, waltzes and polonaises. Pieces by Schubert, Schumann, Moskowski, Tschaikowsky, Poldini, MacDowell and other modern composers.

THEORY

The course comprises the study of the following: Musical rhythm, tempo marks, accents, abbreviations and signs, natural and artificial groupings, musical embellishments, scales, intervals, chords and cadences.

HARMONY

Classes in harmony will be offered to students having a year's credit in theory.

VIOLIN COURSE

Elementary.

Careful attention given to proper position of holding the violin and bow. Elementary violin lessons from modern methods. Scales and chords from first to third positions. Studies by Wohlfahrt, Sitt, Sevcik, Meertz and Kayser, etc. Pieces and ensemble.

Intermediate.

Major and minor scales in all positions. Studies by Mazas, Alard, Sevcik and Kreutzer. Pieces by Leonard, Weiniawski, Vieuxtemps, etc. Sonatas by Corelli, Tartini, Handel, Mozart and Beethoven. Easy concertos by modern composers. Sight-playing, orchestra, string quartet.

Advanced.

Technique by Sevcik, studies by Kreutzer, Fiorello, Rode. Concertos by Viotti, Rode, Kreutzer, Burch, Sain-Saens, etc. Orchestra, ensemble, string quartet, class.

Viola, Violoncello and Contrabass Course.

These instruments may be studied by similar grades to those in the violin course, or may be carried only up into the Intermediate Grade. Pupils having reached a fair degree of proficiency on any stringed instrument are required to play in the regular College orchestra.

COURSE IN WIND INSTRUMENTS

Students wishing to take lessons on any wind instruments receive two lessons per week on instruments.

Methods Used.

For Clarinets—Lazarus, H.; Kroepsch, F.; and Baermann's.

For Oboe—Rosenthal, R., Practical Method.

For Bassoon—Stazehofer, J. A., Practical Method.

For Saxophone—The Universal Method.

For Cornet, Horn and Baritone, Treble Clef—Arban's Method.

For Baritone (euphoneum), three or four or five valves in bass clef—Universal Method.

For Trombone—V. Cornetti's Method.

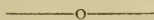
For Bass—Pares, G., Daily Technical Exercises. Complete course in scale studies, and Pandert, E., etudes.

The Band.

Instruction will be given by regular College band leader in the use of brass and wood-wind instruments. To become a member of the College band the student must pass a satisfactory examination before the Director as to knowledge of music and ability to perform on certain instruments before securing recommendation to the President for transfer to the band. The members are required to attend practice three times per week and to perform in public by authority of the President. There is no charge for instruction in the band. The College furnishes most of the instruments, music and music stands to members of band and orchestra. Other students pay \$1.00 per month in advance for instruments used in practice when furnished by the College.

The Orchestra.

Any College student who plays on any string or wind instrument has the privilege of the orchestra on approval of the Director of Music.

**DEPARTMENT OF PHYSICAL TRAINING FOR MEN**

E. C. GALLAGHER, *Professor of Physical Training*
E. A. PRITCHARD, *Head Athletic Coach*

Much of the success of a young man or woman in college and in life after graduation depends on good health. The Oklahoma A. and M. College believes in the old adage, "A sound mind in a sound body". The Department of Physical Training aims to create and maintain a vigorous state of health in every student in the College, and its work is so diversified that it meets the indi-

vidual needs. It strives to keep the student body in the best possible physical condition, for and during their college course, and to lay the foundation for proper living and care of the body.

The Men's Gymnasium is a large, well-lighted room 40x60 feet and contains all of the necessary apparatus for gymnasium work of all kinds. The outfitting is done with the idea of giving the student advantages to be found in any well regulated college gymnasium. Dumbbells, barbells and Indian clubs will be found there for mass class drills, and of the heavier apparatus there are the flying rings and traveling rings, the horse, the horizontal bar, the parallel bars, mats, jumping standards, etc. Boxing gloves and fencing foils are also supplied to those desiring to enter into this special work.

In direct connection with the gymnasium is a large locker room with 600 steel and wooden lockers, benches, and a well equipped shower room with eight showers for hot and cold baths.

Every student in the College is expected to do some work to keep himself in the best physical condition.

Students of the Secondary School and Freshman classes, Business and Vocational Courses, are required to do a certain amount of work, for which they receive credit necessary for graduation. There are also classes organized for the other students of the College.

An athletic field for football, baseball and track and field athletics is provided by the College and maintained by the Athletic Association. Students are encouraged to take part in athletic and out-of-door sports. College and class teams are organized and maintained by the Athletic Association, and each team is under the supervision of a trained instructor.

Athletics are a part of the physical training work, but whether a student participates in them or not is optional. No student is allowed to become a member of a team until he has been examined by the Director and proven that he is physically fit. A high standard of scholarship is also required of all members of the College teams.

Each student in the mens' department must provide himself with a gymnasium suit so that there can be a complete change of clothing after the physical training work. This suit consists of a

black, sleeveless jersey, black running trousers and soft-soled shoes. These can be procured at a local store at a cost of not to exceed \$4.00.

SUBJECTS

COURSES FOR MEN

Physical Examination—Preliminary

A thorough physical examination is required of all entering students. This examination consists of measurements, strength tests, examination of the eyes, ears, nose, throat, lungs, heart and other vital organs, and special stress is laid upon physical deformities and inequalities. These defects are pointed out to the student and exercises to correct them are prescribed. Where necessary, special attention and advice are given to the student. An examination is taken at the beginning and at the end of the first year, and at the end of each year after that.

A gymnasium handbook containing chapters on personal hygiene, diet, exercise, prescription, injuries and an anthropometric table is given to each student, who is required to plat his measurements and, upon completion of the gymnasium course, the book becomes his property.

FRESHMEN

101 Physical Training (first semester).

Required of the Freshmen of the College. The work of the Freshman class in this course consists of games, athletic dancing, boxing, wrestling and mass drills, with and without hand apparatus. Graded, systematic work on all apparatus, tumbling and indoor track work. Part of the work will consist of lectures on physical educational subjects. Three times a week. Credit given. Required for graduation.

102 Physical Training (second semester).

Required of the Freshmen of the College. Advanced work on apparatus, tumbling, athletic dancing, games and drills. The latter portion of the semester will be devoted exclusively to work out of doors, with emphasis on track and field athletics. Lectures on physical educational subjects. Three times a week. Credit given. Required for graduation.

403 Physical Training (first semester).

Senior and Junior elective.

A course in the theory of coaching the four major sports of college athletics. This work includes football and basketball.

Two hours each week.

404 Physical Training (second semester).

Continuation of Course 403. This semester's work includes baseball and track and field athletics.

Two hours each week.

No student admitted to this course without the consent of the Physical Director.

FOR BUSINESS STUDENTS

501 Physical Training (first semester).

Required of students in the business class.

Similar to Course 101, but less advanced. Mass drills in class and apparatus work of the heavier type. Games, mat exercises and lectures on physical education. Three times a week. Credit given. Required.

502 Physical Training (second semester).

Continuation of the work begun in Course 501, with basketball and track and field work in the spring. Lectures on physical education. Three times a week. Credit given. Required for graduation.

SHORT COURSE STUDENTS IN AGRICULTURE

601 Physical Training.

Required of students in the Short Course in Practical Agriculture. Work in mass formation and on apparatus, with an emphasis on coordination. Lectures on personal hygiene and first aid. Three times a week.

PREPARATORY STUDENTS

11, 12, 21, 22, 31, 32 Physical Training.

Complete courses given under the Secondary School.

OPEN TO ALL STUDENTS

701-702 Physical Training.

A. Cross-country running during the fall and spring. Those students desiring to do so may substitute a certain amount of cross-country running for the regular gymnasium work.

B. Wrestling.—A class in wrestling, in which all of the holds, breaks and counters are given, is formed. A student may substitute one hour's work a week in wrestling for one hour of his regular gymnasium work. One hour per week.

C. Boxing.—Class in boxing, in which all of the blows, parries, guards and counters are given, is formed. Students may substitute one hour's work in boxing for one hour of regular gymnasium work. One hour per week.

D. Class in Fencing.—Open only to upperclassmen, with the consent of the Director.

E. Special Class.—A special class is formed for those who, on account of deformities, are unable to take the regular work of the department. The work of this class is suited to the needs of the individuals.

F. Individual corrective work for all students who show in their examination the need of such work. The idea of this work is to correct deformities so that the student may get the maximum value from the regular classwork.

G. A class is organized and maintained for Sophomore, Junior and Senior students. Meets twice a week. This work is optional with the students.

H. Advanced Gymnastic Class.—Open to all students. A special class is formed for students who desire to do advanced work on the horse, parallel bars, horizontal bar, flying rings, mats, tumbling and clubswinging. This comprises the regular gymnasium team for exhibition purposes. Three hours per week.

ATHLETICS

Teams are now maintained in football, baseball, basketball, track and field athletics, tennis, wrestling, gymnastic work. The above forms of athletics are now recognized by the Southwest Conference, and the College gives letters to those complying with the requirements.

DEPARTMENT OF PHYSICAL EDUCATION FOR WOMEN

ANNA MILLER, *Professor*
MARGARET UNSER, *Instructor*

The gymnasium for women, located in the Woman's Building, is an unobstructed room 32x63 feet, and is equipped with all of the modern gymnasium apparatus. There is a locker and dressing room in connection, supplied with a large number of steel lockers. There are also shower baths. In the rear of the building are the women's outdoor tennis courts.

A regular costume is required. In order that these may be uniform in pattern and color, they are ordered by the College. The cost of the suit, including shoes, is about \$6.00.

At the beginning of the first semester each young woman is given a careful examination. Personal history, measurements, deformities, are taken and recorded, with an examination of the vital organs. This examination is repeated during the second semester and comparison made at both examinations with the average. Suggestions and prescriptions suited to the needs of the individual are based upon this examination.

Physical training is prescribed for all Freshman, Sophomore and Business girls, including special students, throughout the College year, three periods a week.

The prescribed courses are designed to secure a high degree of organic power, harmonious physical development, and a reasonable degree of skill and grace.

SUBJECTS

101-102 Three hours per week.

Required of members of the Freshman class and Business class. The work of these classes consists of floorwork, emphasizing carriage and coordination of muscles. Movements with apparatus, progressive back and abdominal exercises are given. Plays, games, rhythms and folk dancing form an important feature of the work.

103-104.

Required of members of the Sophomore class.

This course consists largely of folk and national dances emphasizing the characteristics of the various dances with relation to their respective nations. Folk games and plays, exercises of balance and muscular tension, and rhythms form an important part of the work.

105-106-107-108.

Optional and elective for Junior and Senior girls in the Schools of Science and Literature, Education and Home Economics.

A. Plays and Games (first semester). Credit 1.

In this course the theory of plays and games will be studied. It is also the purpose to provide explanation of and practice in a considerable number and variety of the playground games; dramatic games; traditional games and song plays; games of imitation, gesture, choosing and catching; games which appeal to the young by the stirring energy of their movement and their imaginative pantomime. Studies are made of children's games from all parts of the world, and of the simplest dances of primitive people and of the folk of Europe, or

Advanced Folk Dancing (first semester). Credit 1.

This course consists of the more advanced folk and national dances and ring games suitable for school festivals and pageants. Festival and pageants are taken up, the elements in each discussed, and outline for each suggested. Some time also is devoted to pantomime, its value and possibilities.

B. Theory of Physical Education (second semester). Credit 1.

This is a continuation of the plays and games, but the following will also be considered: History and development of physical education; growth and development of the child; personal hygiene; how to observe and criticize the work of pupils, and plan and arrange lessons. This course will also include methods and exercises used for corrective and therapeutic purposes. A general treatment of massage is given. In specific cases, insufficient osseous development, fractures, dislocations, sprains, muscular rheumatism, colds, insufficient respiratory power and neuralgia headache are considered. Or

Advanced Folk Dancing (second semester). Credit 1.

This is a continuation of the first semester's work. The history of dancing is more thoroughly studied, from the primitive dances to those of the Seventeenth and Eighteenth Centuries. The relation of music to dancing is taken up and a simple system of rhythm is added.

101 Personal Hygiene. Credit 1.

This course considers health in its social and economic aspects and presents personal hygiene as the study by means of which health and efficiency are improved and conserved; facts and principles relating to the body's construction and function which may strengthen the argument in favor of hygienic living; improvement of health and prevention of diseases.

Corrective Gymnastics.

For those unable to take the work of the regular required courses this course will be substituted. Hours to suit.

Athletics.

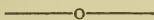
A. Basketball.—Each class has a basketball team, and an inter-class schedule is played.

B. Baseball, Volleyball, Field Hockey and Cross-Country Walking.—Open to all classes during the months of October, April and May.

C. Tennis.—Tennis is played on the College courts during favorable weather. A tennis club is formed which is under the direction of the Girls Athletic Association. This club is open to all girls of the College. The dues are 50 cents per year.

D. The English Folk Dance Society.—This society, under the auspices of the Girls Athletic Association, was formed to further the popularity of English folk dances and songs. Meetings are held once a month in the Girls Gymnasium. It is the ambition of the society to become an authorized branch of the English Folk Dance Society of England.

E. May Festival Dances.—For the May Festival each year the Girls Athletic Association gives a May pole dance, composed of the rhythmical plays and games taught in the gymnasium throughout the school year.

**DEPARTMENT OF MILITARY SCIENCE AND TACTICS**

C. D. DUDLEY
Captain United States Army, Retired
Commandant of Cadets

M. McDONALD
Sergeant Major, United States Army, Retired
Assistant

This institution, being one of the beneficiaries of the Act of Congress of 1862, instruction in military tactics is made compulsory.

The Department is in charge of an officer of the United States Army, detailed by the War Department, as professor of military science and tactics.

Military discipline is exercised with firmness, kindness and justice. It tends to cultivate habits of punctuality, alertness and the sense of personal responsibility. It also teaches attention to detail, cleanliness of person and of dress, a high sense of honor and respect for those in authority.

It helps the student to prepare himself the better for any position in life, because employers like to find men who are imbued with the idea of doing exactly as they are instructed by one who is authorized to direct them, and who have been trained to exercise quick yet sound judgment in any emergency that arises concerning which they have no definite instruction. These qualities are thoroughly inculcated in any person by a military training,

such as the College endeavors to give them. In addition, the drills give a graceful carriage to the student, assist in the promotion of the health of the individual, and are an added benefit to the gymnasium work of the College.

Former President Taft, on February 25, 1911, following a review of 1,400 cadets of the University of Illinois, wrote as follows to the President of that institution: "We are all in favor of college athletics, but one of the defects of athletics is the tendency to confine work to those who are naturally best adapted to it while the great student body takes no active part in the games. This is not true of military training that comes from the organization and maintenance of a school regiment."

The course of instruction is made to conform strictly to the provisions of General Order No. 70, War Department, Series of 1913, and General Orders No. 49, War Department, Series of 1916. In compliance with the requirements of these orders the course is both practical and theoretical, and will be given as follows:

Practical

1. Infantry Drill.
2. Advance Guards, Rear Guards, Outposts, Messages and Orders, Signalling.
3. Marches, Map Drawing and Entrenchments.
4. Ceremonies of Review, Inspection, Parades, Escort of the Colors, and Guard Mounting.
5. Gallery Practice, Nomenclature of the Rifle, Sighting Drills, Position and Aiming Drills, and Deflection and Elevation Correction Drills.
6. Range Practice with Service Ammunition.
7. Field Problems with Blank Ammunition.
8. Duties consistent with rank as cadet officers or non-commissioned officers in connection with the practical work and exercises.
9. Special courses in military spoken French are given in connection with this department.

All students not physically disqualified are required to take the practical instruction during the entire preparatory course and in the collegiate course until 180 hours have been completed. Hours drilled in the preparatory course count one-third.

During the first semester there will be three hours drill per week, while the second semester will be devoted to two drills per week with one hours instruction in military science in the subjects as set forth in the following table:

Theoretical Military Science

1. Infantry Drill Regulations, United States Army, 1911.
2. Small Arms Firing Manual, 1913.
3. Field Service Regulations, United States Army, 1914.
4. Manual of Guard Duty.
5. Outline of First Aid to the Injured.
6. Lectures on various military topics, such as hygiene, camp sanitation, military history of the United States, etc.

Satisfactory completion of the prescribed work is required before graduation.

Students entering the College from other institutions where officers of the Army are on duty will be given credit for the work for which they hold certificates.

Students who show aptitude for the military service are recommended for appointment as second lieutenants in the Army. Positions in the Engineer Corps of the Army are open to certain students of the Engineering Departments of the College. A list of students who have shown special ability in engineering is kept by the War Department in order to be able to locate good engineers in case of need. Graduates of the College are also selected for service in the Philippine Constabulary and are not required to take the mental examination if recommended by the College authorities.

Reserve Officers Training Corps

By giving the above course in military science this College is eligible and has been designated by the War Department to maintain a Senior Division of the Training Corps for Reserve Officers. The primary object of this advanced training is to prepare young men to perform intelligently the duties of commissioned officers of the military forces of the United States, and it enables them to be thus trained with the least practicable interference with their civil careers.

When a student at this College has completed two years instruction in the Military Department and he has been chosen by

the President and professor of military science and tactics for further instruction, he will receive pay at the rate of \$9.00 per month as commutation of rations. Any members of the advanced course who attend summer camp will be furnished free by the Government one hat, two pairs of breeches and two flannel shirts, olive drab. In lieu of furnishing these articles, the student will be allowed \$9.00 for the purchase of them.

In return for this the student must agree to take instruction of five hours per week during the remainder of his course and to pursue the camp training prescribed during such period by the Secretary of War. This camp training will not exceed two camps of four weeks each. Ordinarily one will be attended at the end of the Junior year and the other subsequent to graduation. In case the student prefers to attend a camp during his first two years in the collegiate course, he will be given full credit for such attendance.

The camp to be attended subsequent to graduation may be omitted in case the graduate applies for and receives the appointment of temporary second lieutenant in the Regular Army for a period of six months, with pay at \$100.00 per month and allowances.

At the conclusion of the camp subsequent to graduation, or when the graduate receives an appointment as temporary second lieutenant in the Regular Army, he may apply for and be appointed an officer in the Reserve Corps. Upon being appointed the graduate must agree to serve as a reserve officer for ten years, and he will attain the rank in the reserve corps according to his length of service in it. He cannot without his consent be called out for service in a lower grade than that held by him in the reserve corps, and whenever called into the service will receive the full pay and allowances of his grade. The minimum for a second lieutenant is \$1,700.00 per annum, with quarters, heat and light.

In time of peace he may be called into service for instruction with troops during field exercises for not to exceed fifteen days in any one calendar year. In time of actual or threatened hostilities, the reserve officers will be the first to receive commissions in the volunteers.

Under the advanced course are included the following subjects:

1. Military Organization. Property Accountability.
2. Service of Security and Information.
3. Personal Hygiene.
4. Camp Sanitation and Camping Expedients.
5. Military Sketching.
6. Studies in Minor Tactics.
7. Map Maneuvers.
8. Elements of International Law.

Lectures on International Relations of America, General Principles of Strategy, Psychology of War, Military History and Policy of the United States.

Equipment

The War Department has supplied the College with 560 U. S. magazine rifles, cal. 30, Model of 1898; 18 U. S. magazine rifles, cal. 22, and 600 sets of infantry equipment. Swords, targets, target supplies, ammunition for all rifles and cleaning material are furnished to the College free of charge by the War Department.

All students are required to purchase a uniform costing in the neighborhood of \$18.00, of which \$14.00 will be refunded by the Government.

Organization

All young men are required to enroll in the Military Department.

Those who are entitled to be excused must at the time they enroll make a written application to be placed on the unassigned list. All students who are on the unassigned list will be excused from all military duty.

The Corps of Cadets has been organized into a regiment consisting of a band and three battalions of three companies each.

Each year the names of all the company officers of the best drilled company and company letter are engraved on a silver band and placed on the staff of the College flag.

The beautiful Drummond cup will be awarded annually for individual excellence in the Military Department.

The commissioned officers, as a reward for excellent service, are presented by the College with an engraved commission and a saber upon graduation.

Officers are selected from senior members of the Reserve Officers Training Corps.

Rifle Club

The Rifle Club of the College is a part of the National Rifle Association of America. All firing is under the supervision of a judge selected by the N. R. A. Medals and qualification insignia are furnished by the War Department.

Officers of the Club: President and captain, E. L. Chase; secretary, N. M. Walker; treasurer, G. N. Douglas.

AGRICULTURAL EXPERIMENT STATION

The Experiment Station was established by provision of an Act of Congress approved March 2, 1887, commonly known as the Hatch Act, and entitled "An Act to establish Agricultural Experiment Stations in connection with Colleges established in the several States under the provision of an Act approved July 2, 1862, and of the acts supplementary thereto". Its objects are defined in the second section of the Act as follows:

"That it shall be the object and duty of said Experiment Stations to conduct original researches or verify experiment on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued in a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural and artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of different kinds of foods for domestic animals; the scientific and economic questions in the production of butter and cheese; and such researches or experiments bearing directly on the agricultural industry in the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective States and Territories."

The Oklahoma Agricultural Experiment Station was located at the A. and M. College at Stillwater in July, 1891. In addition to the funds received from the two Federal appropriations above mentioned, which amounts to \$30,000.00 per annum, the State Board of Agriculture, as the Regents of the A. and M. College, has provided about \$5,000.00 by appropriating funds from the legislative appropriations for the further maintenance and support of the Experiment Station.

At present the lines of investigation pursued include experiments in soils, crops and fruits; breeding of livestock; feeds and feeding; insect pests, economic insects; poultry and egg production and poultry feeding; plant and animal parasites, plant and animal diseases, and their control and eradication; butter, cheese and ice cream manufacture, etc.

The investigations are designed especially to further the progress of agriculture in Oklahoma, with special reference to the soil and climatic conditions.

This very wide range of investigational and experimental work is of itself an educational feature of the College. Students have opportunities to study methods of attacking problems, and many of them are employed in the laboratories and experimental plats, where they may study problems at first hand.

Each year an annual report is published giving a resume of the work accomplished the past year. Short articles are often included. These reports become a valuable history of the work and progress of the Station.

The results obtained in the various lines of experiment work are published in bulletins. In addition to the regular bulletins, giving the results of this work, a series of popular publications known as circulars are issued from time to time as conditions would seem to warrant to be used by the extension service in distributing valuable information to the farmers.

A mailing list is maintained which numbers at the present about 17,000 names, principally of farmers, in various parts of the State. Any citizen of the State interested in agriculture may have the bulletins and other publications from the Station sent free on application to the Director of the Experiment Station asking to have his name placed upon the regular mailing list.

Such portions of the College farm, which comprises about 1,000 acres, as are needed for Experiment Station and research work, are set aside for this purpose; also such livestock as is needed for feeding experiments is utilized by the Station men. All the scientific laboratories of the College are available for research work, and many of the scientific departments of the institution are interested in carrying on different projects under the supervision of the Experiment Station officers.

THE EXTENSION DIVISION

During the past fifteen months the extension workers of the A. and M. College have become so well known over the State of Oklahoma that it is not necessary to make any explanation as to the nature of the work of the Extension Division of the College.

Since the United States entered the war a county agent has been working in each of the seventy-seven counties of the State, and in several of the larger counties there have been assistant county agents. There have also been fifty women agents and four assistants in the State, and eleven urban women agents.

These agents have been foremost in their respective counties in all work pertaining to greater crop production, the preservation and conservation of food and feeds, Liberty Bond and War Savings Stamp drives and in Red Cross and Y. M. C. A. work; in fact, any work in which they can be of service to the Nation in the present crisis.

District Agents.—In order that the work of the men county agents be more carefully supervised, the State has been divided into six districts which are each in charge of a district agent. There are also two district agents for women's work. The district agents visit the counties in their districts regularly and assist and instruct the county agents in all matters pertaining to their work.

Special Agents.—Beside the county men and women agents and district agents, there are a number of specialists or special agents, who assist the county agents in particular lines of work; for instance, the Bureau of Animal Industry of the United States Department of Agriculture has furnished the Extension Division of the College with two special agents in Dairy work, two in Poultry Club work, two in Livestock Club work, and a special worker in cottage cheese demonstrations. We also have two special agents in Home Demonstration work, one each in Rural Sanitation, Farm Management, Farm Labor, Horticulture and

Gardening, Control of Hog Cholera, and Production and Distribution of Seed.

Fairs.—Special work has been done, and will be done, to encourage and aid in the holding of community and county fairs, which lead up to exhibits of agricultural, livestock and home products at the State Fairs. Schools will be held at the State Fair and the New State Fair for club prize-winners. Nineteen scholarships in the A. and M. College and numerous smaller prizes will be awarded in the various club contests.

During the calendar year of 1917 the men agents made 67,632 visits to farmers, club members and others. They traveled 5,030,745 miles by auto, team and railroad. They addressed 5,591 meetings at which the total approximate attendance was 443,303. They wrote 41,528 official letters and prepared and sent out 65,562 circular letters, beside writing 2,214 articles for publication.

The fifty home demonstration agents the past year worked with the women and girls in each of their respective counties. They encouraged rural families to provide more and better food at low cost, encouraged club members to obtain a better education, enabled the girls and women on the farms to raise more and better poultry, thus increasing the State's meat supply, and increasing the family income. They endeavored to make life in rural communities more attractive, and through all these avenues to make better home-makers and thus better Oklahoma citizens. These agents supervise the Canning, Poultry and Better Bread Clubs for girls, and Home Demonstration Clubs for women.

The total number of girls enrolled at the present time is 16,730 regular members, and about 2,000 emergency members.

The women agents supervised the work of the Canning Club girls who reported that they had produced 171,805 pounds of vegetables and canned 22,146 containers of same, the total value of all products canned by girls being \$17,620.46.

The total number of containers of fruits and vegetables canned by women under the direction of agents was 270,000, the total number of containers of dried fruits and vegetables stored was 136,929; gallons of brined vegetables was 33,634. The total value of all products saved by women last year under direction of agents was \$189,162.00.

The total value of all poultry work in 1917 for women and girls was \$19,548.00.

The Boys Club work, as organized and supervised by the Extension Division of the A. and M. College, has for its object the instruction of rural boys in approved methods of crop and live-stock production, with a view of increasing the financial condition of the farmers of the future, thereby providing for better homes, better schools and consequently a higher citizenship.

The club activities supervised for white boys for the year 1918 are as follows:

Corn, Grain Sorghum (kafir, milo, feterita), Cotton, Peanuts, Wheat, Three Crop (Crop Rotation), Pig, Calf (Dairy and Beef), Sheep, Poultry and Honey Bee.

The total number of boys enrolled at the present date is 27,035 regular members. In addition to the above, 5,220 boys are enrolled as emergency members as a war measure. These boys, with the Girls Club members, are organized into 1,028 club organizations, with regular officers elected and holding regular monthly meetings.

Instructional work is carried on through the personal efforts of the county agents, the club rallies, short courses and contests conducted by the county, district and State Club agents, and by means of bulletins and circular letters.

It is impossible to give a comprehensive view of the work of the Extension Division in such a brief article.

ACCREDITED SCHOOLS

Students who have completed the course of study in accredited schools will be given credit at the A. and M. College according to the following schedule:

List 1

Graduates from the following schools will be accepted for 15 or more units credit:

Ada	Academy Cordell	Helena
Afton	Christian College,	Heavener
Aline	Cordell	Hennessey
Altus	Cordell	Henryetta
Amber	Coweta	Hinton
Anadarko	Crescent	Hobart
Apache	Cushing	Holdenville
Arapaho	Custer City	Hollis
Ardmore	Davis	Hominy
Atoka	Dewey	Hugo
Bartlesville	Drummond	Hydro
Beaver	Drumright	Idabel
Beggs	Duncan	Jenks
Billings	Durant	Jet
Blackwell	Eldorado	Keota
Blair	Elk City	Kingfisher College
Boswell	El Reno	Academy, King-
Bristow	Enid	fisher
Britton	Eufaula	Kingfisher
Broken Arrow	Phillips University	Kiefer
Broken Bow	Academy, Enid	Kiowa
Carmen	Erick	Konawa
Caddo	Fairfax	Lambert
Carnegie	Fairview	Lamont
Carney	Francis	Lawton
Chandler	Frederick	Lehigh
Checotah	Geary	Lexington
Chelsea	Glenpool	Lindsay
Chickasha	Grandfield	McAlester
Academy Oklahoma	Granite	McLoud
College for Women	Grove	Madill
Chickasha	Guthrie	Mangum
Claremore	Guymon	Marietta
Cleveland	Oklahoma Methodist	Marlow
Clinton	University Academy	Marshall
Coalgate	Guthrie	Maud
Collinsville	Haileyville	Medford
Comanche	Hartshorne	Miami
Copen	Headrick	Milburn

Mill Creek	Pawnee	Supply
Minco	Perry	Tecumseh
Mounds	Ponca City	Temple
Mountain View	Pond Creek	Texhoma
Muldrow	Porum	Thomas
Muskogee	Poteau	Tishomingo
Oklahoma School for the Blind, Muskogee	Prague	Tonkawa
Newkirk	Preston	Tyrone
St. Francis Academy, Newkirk	Pryor	Academy, Henry Ken- dall College, Tulsa
New Wilson	Purcell	Tulsa
Noble	Ramona	Tuttle
Norman	Roff	Vinita
Nowata	Ryan	Walter
Oilton	Rush Springs	Wapanucka
Okeene	Sacred Heart Acade- my, El Reno	Watonga
Okemah	St. Joseph's Academy, Guthrie	Waukomis
Okfuskee County High School, Paden	Sallisaw	Waurika
Oklahoma City	Sand Springs	Waynoka
St. Mary's Academy, Oklahoma City	Sapulpa	Weatherford
Oklahoma Presbyte- rian College for Women, Durant	Sayre	Welch
Okmulgee	Seminole	Weleetka
Oktaha	Shawnee	Wewoka
Pauls Valley	Shattuck	Wilburton
Pawhuska	Snyder	Woodward
	Stigler	Wynnewood
	Stillwater	Yale
	Stilwell	Yukon
	Sulphur	

List 2

Graduates from the following schools will be accepted for 12 to 14½ units credit:

Alva	Haskell	Randlett
Bearden	Hitchcock	Reed
Council Hill	Jennings	Spiro
Devol	Kingston	Vian
Driftwood	Laurence Friends	Wakita Consolidated
Gage	Academy, Gate	District
Garber	Lone Wolf	Wellston
Harmon	Quinton	Woodville

List 3

Graduates from the following schools will be given 8 to 11½ credits. Necessary work for additional credits may be taken in the Secondary School at the A. and M. College:

Allen	Centralia	Gotebo
Bigheart	Davoma	Howe
Braggs	Dale	Hunter
Calumet	Deer Creek	Ingersoll
Canadian	Depew	Krebs
Capron	Fitzhugh	Laverne

Morris.
Putnam City Consoli-
dated No. 1

Red Oak
Talihina
Tupelo

Valliant
Washington
Wister

List 4

Graduates from the following list of schools will be given from 4 to 7½ credits, and will be expected to make up the remainder of the necessary credits in the Secondary School of the A. and M. College:

Balko
Boynton
Douglas
Edmond
Forgan

Fort Gibson
Garvin
Gowan
Ochelata
Okarche

Red Rock
Sparks
Wainright
Webbers Falls

REGISTER OF STUDENTS

The classification of students is indicated by the following abbreviations:

Agri., School of Agriculture; M. E., Mechanical Engineering; C. E., Civil Engineering; E. E. Electrical Engineering; Arch., Architecture; H. E., School of Home Economics; S. and L., School of Science and Literature; Edu., School of Education; C. and M., School of Commerce and Marketing; V. M., School of Veterinary Medicine; Sec., Secondary School; Bus. Business; P. C. A., Practical Course in Agriculture; P. C. E., Practical Course in Engineering; S. S., Summer Session; 1-2, first and second semester, respectively.

Graduate Students

Buffington, Betha, B. S., 1912	Stillwater
Fellows, Iris., B. S., 1917	Stillwater
Hughes, Pauline, B. S., 1917	Stillwater
Jones, Daisy, B. S., 1914	Stillwater
McCarrel, Fred, B. S., 1916	Stillwater
Moorman, Helen, B. S., 1916	Stillwater
Nelson, Ivo, B. S., 1917	Stillwater

Under-Graduate Students

NAME	COURSE	ADDRESS
Abbott, Verne	P. C. A.	1 Stillwater
Ables, Edward	Agri., Fr.	1-2 Grady
Adams, Paul	Sec.	1-2 Lucien
Adams, Raymond	P. C. A.	1-2 Morrison
Adams, Francis	P. C. A.	1 Ponca City
Ahrberg, Fred	Agri., Fr.	1-2 Stillwater
Aikins, Grace F.	S. and L., Fr.	SS-1-2 Stillwater
Aikins, Grace M.	H. E., Soph.	1-2 Lamont
Aikins, Mrs. Nellie	Sec.	SS-1-2 Stillwater
Aldridge, Clarice	Edu., Fr.	1-2 Wakita
Alexander, Nell	H. E., Jr.	1-2 McEzrie, Tennessee
Allen, Olliejane	Bus.	1-2 Collinsville
Altizer, Lottie	Special	SS-1-2 Alva
Allnut, Garnett	Unclassified	1 Stillwater
Anderson, Carl	Sec.	1-2 McLoud
Anderson, Andy	Edu., Soph.	1-2 Idabel
Anderson, Garland	Engr., Fr.	1 Clinton
Andrew, Myrtie	Bus.	1-2 Cherokee
Andrew, Ralph	Bus.	1 Stillwater
Andrews, Ralph	Sec.	1 Pauls Valley
Andrews, Leonard	Bus.	-2 Stillwater
Annett, Bonnie	Edu., Fr.	1-2 Cleveland
Armstrong, Gladys	Sec.	1-2 Panhandle, Texas
Armstrong, Ola	H. E., Jr.	1-2 Chandler
Arnold, Olive	Bus.	1-2 Beggs
Arrington, Chas.	Engr., Fr.	1-2 Lindsay
Arrington, Emmett	Sec.	1-2 Lindsay
Athcison, Dewey	Engr., Fr.	1-2 Shawnee
Atkinson, Florence	Edu., Fr.	SS-1-2 Stillwater

NAME	COURSE	ADDRESS
Atkinson, Roy	E. E., Soph.	1 Stillwater
Ault, Wayne	C. and M., Fr.	1 Blackwell
Axtell, Charlie	P. C. E.	1 Ripley
Aycock, Thomas	C. and M., Sr.	1 Altus
Aynsworth, James	P. C. A.	1-2 Childress, Texas
Bailey, Warren	S. and L., Fr.	1-2 Snyder
Baird, W. D.	Sec.	1 Davenport
Baker, Alpha	Sec.	-2 Stillwater
Baker, Josie	Sec.	1-2 Pleasant Valley
Baker, Ora	Bus.	1-2 Stillwater
Baker, Oral	Sec.	1-2 Stillwater
Bakhaus, Orville	C. and M., Fr.	-2 Castle
Baldwin, Mary B.	H. E., Fr.	1-2 Anadarko
Baldwin, Kenneth	Engr., Fr.	1-2 Anadarko
Baldwin, Myrtle	Edu., Soph.	1-2 Anadarko
Valentine, J. E.	Special	1 Delawarc
Ball, Charles	P. C. A.	1-2 Arapaho
Bandelier, Geo.	E. E., Sr.	1-2 Stillwater
Bandelier, Edward	Sec.	1-2 Stillwater
Banks, Hugh	C. and M., Soph.	1 Hobart
Barber, Davis	P. C. A.	1-2 Stone Bluff
Parnard, George R.	Sec.	1 Hennessey
Barnes, Hazel	H. S., Sr.	SS-1-2 Stillwater
Barr, Maurine	Sec.	SS-1-2 Stillwater
Barrett, Flavius	Engr., Fr.	1-2 Claremore
Barrett, Silas	Agri., Fr.	1-2 Ryan
Barron, Myrle W.	E. E., Soph.	1-2 Stillwater
Bartell, Louise	Sec.	1-2 Siloam Springs, Arkansas
Barthel, Blanche	Sec.	1-2 Stillwater
Bartlett, Tom	P. C. A.	1-2 Drummond
Batchelor, Curtis	Special	1-2 Crescent
Baty, Anna	Edu., Soph.	1-2 Stillwater
Baty, Aubrey	Bus.	1 Medford
Baum, Garland	Sec.	1 Savanna
Bauman, Frank	P. C. E.	1-2 Okarche
Baxter, Leland C.	P. C. A.	1 Ringwood
Bean, Elizabeth	Sec.	1 Francis
Bean, Grace	Bus.	1 Francis
Beatty, Helen	Edu., Fr.	1-2 Helena
Becker, Francis	Engr., Fr.	-2 Stillwater
Beeson, Evelyn	Special	1 Stillwater
Bell, Errol	Vocational	1-2 Grand Valley
Bellis, Charles E.	Hort., Jr.	SS-1-2 Stillwater
Berkhimer, Miriam E.	H. E., Fr.	1-2 Humboldt, Iowa
Berry, Edna	Bus.	-2 Stillwater
Berry, Lee	P. C. A.	1-2 Delaware
Berry, Roger E.	Agron., Sr.	1-2 Pond Creek
Berry, Velma	Sec.	1 Tulsa
Berry, Jewell	Bus.	1 Stillwater
Betty, Willis	Sec.	1-2 Hooker
Best, Oather	Sec.	1
Bessire, Thomas	C. and M., Fr.	1 Headrick
Bever, Leo	C. E., Jr.	SS-1-2 Stillwater
Bever, Inez	Sec.	1-2 Skedee
Bever, Hazel	H. E., Soph.	1-2 Skedee
Bieberdorf, Gustav	Sec.	1-2 Orlando
Biggers, Enock	Bus.	1 Hampton, Arkansas
Bilyeu, Floyd M.	C. and M., Jr.	1-2 Stillwater
Bishop, Lester	Sec.	1 Stillwater
Black, Ora	Special	1-2 Camargo
Blackledge, Herschel	Bus.	1 Camargo
Blair, James	P. C. A.	1-2 Nash
Bly, Flossie	Bus.	1 Dewar
Billingslet, Hazel	Unclassified	1-2 Hastings
Poerner, Carl	Bus.	1 Wellston
Bollinger, Dora	Engr., Fr.	1-2 Sparks
Bolinger, Philip	Sec.	1-2 Talihina
Bolyard, Garrett	C. and M., Fr.	1-2 Kiowa
Bomark, Edna	Unclassified	1-2 Lindsay
Bonham, Wendell	Sec.	1-2 Pawnee
Booth, Samuel	Agri., Soph.	1-2 Keota
Bordwell, Evelyn	S. and L., Fr.	1 Leflore
Bottger, Howard W.	Bus.	1-2 Yale
Bowden, James	Agri., Fr.	1-2 Oklahoma City
Bowen, Lillian	Agri., Fr.	1-2 Magazine, Arkansas
Bower, William	Sec.	1 Silverbell, Arizona

NAME	COURSE	ADDRESS
Boyd, Faye	Sec.	1 Glencoe
Braly, Byron B.	H. E., Fr.	1-2 Hooker
Bailey, Warren	Agri., Jr.	1-2 Leonard, Texas
Brane, Opal	Sec.	1 Beggs
Branham, Joe	Edu., Fr.	1-2 Hobart
Braniger, Frank E.	Engr., Fr.	1-2 Oklahoma City
Brannin, Mrs. Louis	P. C. A.	1-2 Stillwater
Bras, Clara	Edu., Sr.	1-2 Mason
Bray, Clyde	Bus.	-2 Albany
Breinolt, Maren	Sec.	1 Billings
Breinolt, Thelma	Sec.	1-2 Billings
Brewer, Charles E.	Sec.	1-2 Stillwater
Brewer, Lawrence J.	M. E., Jr.	1-2 Bartlesville
Brewster, Albert H.	Sec.	1 Lindsay
Briggs, Ancel B.	Vocational	-2 Hollister
Briggs, Helen	Edu., Fr.	1-2 Hollister
Briggs, Mrs. Bertha	Sec.	1-2 Hollister
Bright, Meredith	Sec.	1-2 Hugo
Brock, Mary D.	Agri., Sr.	1 Kendrick
Brooks, Robert	Edu., Soph.	1-2 Shawnee
Brooks, Charles I.	Agri., Fr.	1-2 Perkins
Brower, Maude	Sec.	1 Luther
Brower, Belle	H. E., Sr.	1-2 Luther
Brown, Leslie	H. E., Jr.	1-2 Guthrie
Brown, Rue W.	Engr., Fr.	1-2 Oklahoma City
Brown, Myrtle	Engr., Fr.	1-2 Ripley
Brown, Ida	Bus.	1-2 Washington, Kansas
Brown, Bernard	Engr., Fr.	1 Medford
Bruce, Courtney	Sec.	1 Coalgate
Brunskill, Don	C. and M., Fr.	1-2 Elgin
Bryce, John	Sec.	-2 Stillwater
Bryce, James	Agri., Fr.	1 Stillwater
Buescher, LeRoy	Special	1-2 Moulton, Texas
Bufington, Edith	Edu., Sr.	SS-1-2 Stillwater
Bull, Derril	Sec.	1-2 Crawford
Bulling, Edna	Sec.	1-2 Orlando
Bullock, Nellie	Edu., Fr.	SS-1-2 Stillwater
Bumpus, Walter	P. C. A.	1-2 Redmoon
Burford, Mamie	H. E., Fr.	1-2 Drummond
Burkhead, Eugene	P. S. A.	1 Piedmont
Burkhead, Mary	Bus.	1-2 Piedmont
Burkhead, Leonard	Sec.	1-2 Piedmont
Burnham, Alice	H. E., Jr.	SS-1-2 Stillwater
Burris, Lemuel C.	Engr., Fr.	1 Tishomingo
Bush, Florence	Bus.	SS-1-2 Oklahoma City
Bush, Nola	Sec.	-2 Comanche
Bushnell, Iona	Bus.	1-2 Lehigh
Butler, Oram	M. E., Soph.	1-2 Waukomis
Butler, Ruth	Sec.	1-2 Guthrie
Butz, Joy	Sec.	1-2 Mannford
Byfield, Ethel	Bus.	1-2 Orienta
Calame, Carroll E.	Engr., Fr.	1-2 Stillwater
Calavan, S. F.	P. C. A.	1-2 Omega
Caldwell, Lenora	H. E., Fr.	SS-1-2 Stillwater
Cadwell, Mabel	Edu., Sa.	SS-1-2 Stillwater
Caldwell, J. Gustin	Eugr., Fr.	1-2 Chickasha
Calahan, Thomas	Sec.	1-2 Morse
Callaway, S. C.	A. H., Jr.	1-2 Duncan
Campbell, Helen	H. E., Fr.	1-2 Stillwater
Campbell, Pearl	Bus.	-2 Stillwater
Campbell, Samuel A.	Sec.	1-2 Oklahoma City
Campbell, Harold	Sec.	1 Mountain View
Canfield, Ralph W.	S. and L., Jr.	1-2 Yale
Canfie Id, Roy	Sec.	1-2 Yale
Cantrell, Delpha O.	Bus.	1 Ripley
Cantwell, Robert	Sec.	1 Stillwater
Cantwell, Carolyn	S. and L., Soph.	SS-1-2 Stillwater
Caplena, Emma	Sec.	1-2 Stillwater
Carey, Ronald	P. C. A.	1 Aline
Carlson, Alice	H. E., Jr.	1-2 Meno
Carlson, Floyd	A. H., Sr.	1 Meno
Carlton, Howard	Agri., Fr.	SS-1-2 Cooperton
Carmichael, Claude	Sec.	1-2 Higgins, Texas
Carpenter, Edward	Bus.	1-2 Bridgeport
Carpenter, Carlisle	Unclassified	1 Warner
Carroll, Frank	P. C. A.	1-2 Newkirk

NAME	COURSE	ADDRESS
Carter, Grover C.	Agron., Jr. SS-1-2	Turley
Carter, Harry S.	C. and M., Fr. 1-2	Guthrie
Carter, Zaida	H. E., Fr. SS-1-2	Stillwater
Cash, Mary F.	Sec. 1-2	Glencoe
Cass, Maude	H. E., Jr. 1-2	Tulsa
Castle, Lois	H. E., Sr. 1-2	Okemah
Casto, Gladys	H. E., Fr. 1-2	Covington
Cawley, Mrs. Mamie	Bus. 1	Stillwater
Chambless, Herman	P. C. E. 1	Hoover
Chase, Martin W.	A. H., Soph. 1-2	Ralston
Chase, Price	Sec. -2	Nowata
Chase, E. L.	Edu., Fr. -2	Ralston
Cheadle, Graham	Sec. -2	Norman
Cheatham, Vera	Bus. SS-1-2	Warwick
Childers, Hazel	Bus. 1-2	Stillwater
Childers, Almeda	Sec. 1-2	Stillwater
Childers, Manford	Sec. 1	Stillwater
Choate, Corneal	Sec. SS-1-2	Paoli
Choate, Ralph	P. C. A. 1	Lawton
Churchill, Alton	Sec. -2	Fort Cobb
Clark, Thomas H.	Agri., Fr. 1	Oklahoma City
Clark, Mary	Sec. 1-2	Stillwater
Clausen, Minnie	Bus. 1-2	Stillwater
Clausen, Lillian	Edu., Sr. J. SS-1-2	Stillwater
Clay, Henry	S. and L., Sr. SS-1-2	Ninnekah
Clayton, Paul	Sec. 1	Pauls Valley
Clayton, LeRoy	Sec. 1	Dill
Clingenpeel, Mae	Sec. 1-2	Stillwater
Clingenpeel, Mrs. Edna	Sec. 1	Stillwater
Close, Lillian	Bus. SS-1-2	Stillwater
Cloyes, Ralph	P. C. A. 1-2	Harmon
Clump, Thomas D.	Agri., Fr. 1-2	Dover
Coe, Mildred	Special 1	Nashville, Michigan
Coffman, Grace	Bus. -2	Shawnee
Colbert, Rufus	C. and M., Fr. 1-2	Antlers
Colbert, Richard	Special SS-1-2	Ada
Coldiron, Reed	Agri., Soph. 1-2	Pond Creek
Cole, Lester	Sec. 1-2	Pond Creek
Coleman, Elston	P. C. A. 1	Newkirk
Colglazier, Ray	A. H., Soph. 1-2	Stillwater
Collins, Blanche	Special SS-1-2	Stillwater
Conner, Esther	Bus. -2	Stillwater
Conner, Adelia	Special -2	Grainola
Conrad, Ralph	Sec. 1-2	Cement
Conrad, James O.	Bus. 1	Rankin
Conway, Percy	P. C. E. 1	Stillwater
Cook, Grace	Bus. 1	Stillwater
Coon, Ima	Sec. 1-2	Durant
Coppedge, William	C. and M., Soph. SS-1-2	Grove
Corbin, Sewell	Bus. 1	Whitedeer
Cornwell, Dewey	Bus. 1	Navina
Correll, Lawrence	A. H., Jr. 1-2	Stillwater
Couch, Earl	Sec. 1-2	Stillwater
Cowan, Garvis	P. C. A. 1	Mounds
Cowan, Hazel	Edu., Fr. 1-2	Stillwater
Cowan, J. P.	Edu., Soph. 1-2	Stillwater
Cowan, J. B.	Engr., Fr. 1-2	Eddy
Cowart, Grady	Sec. 1	Alma, Arkansas
Crahtree, Elmer L.	Sec. -2	Stonewall
Craft, Myrtle	Bus. 1-2	Stillwater
Craft, William M.	Bus. 1-2	Stillwater
Crays, Irvin	Sec. SS-1-2	Stillwater
Crockett, Glen E.	P. C. A. 1-2	Jefferson
Cronkite, Lewis	Bus. 1	Cashion
Croskill, McKinley	Sec. 1-2	Berwyn
Cross, Thelma	Sec. 1-2	Glencoe
Cross, Audrey	Sec. 1-2	Mulhall
Crow, J. C.	Sec. 1-2	Chattanooga
Crum, Leonard	Sec. 1-2	Tulia, Texas
Cummins, Ina Mae	Edu., Soph. SS-1-2	Stillwater
Curnutt, Mazel	Sec. 1	Talihina
Currey, Kathryn	Sec. SS-1-2	Stillwater
Curtis, Bonnie Marie	Edu., Fr. 1	Uncas
Darlow, Albert	Agri., Fr. 1-2	Glencoe
Davidson, James	Sec. 1	
Davidson, Lois	Edu., Sr. SS-1-2	Stillwater

NAME	COURSE	ADDRESS
Davidson, Frances	Edu., Fr.	SS-1-2 Stillwater
Davis, A. H.	Agri., Fr.	1-2 Enid
Davis, Kathryn	S. and L., Fr.	1-2 Chandler
Davis, Iva	Bus.	SS-1-2 Stillwater
Davis, Eva	Bus.	SS-1 Stillwater
Davis, Earl	Sec.	1 Mounds
Davis, Joe	Arch., Soph	SS-1-2 Shawnee
Davis, Elmore	Vocational	-2 Granite
Deen, Will	Sec.	SS-1-2 Viuita
Defee, Francis M.	P. C. E.	1 Frederick
Denman, Stark	Agri., Fr.	1-2 Stillwater
Denman, Isola	Sec.	1-2 Stillwater
Denton, Mary Belle	H. E., Sr.	1-2 Newkirk
Denton, Guy	M. E., Soph	1-2 Blackwell
Derdeyn, Marcell H.	Agri., Fr.	1-2 Pauls Valley
DeVore, Jane	H. E., Fr.	SS-1-2 Stillwater
Dickerson, Lewis L.	Engr., Fr.	1-2 Atoka
Dietrich, Charles M.	P. C. A.	1-2 Fort Cobb
Dill, Glenn	S. and L., Soph	1-2 Okemah
Dilley, Clarence	P. C. A.	1-2 Pawnee
Dillman, Grace	Sec.	SS-1-2 Glencoe
Dillon, John H.	Special	1 Geary
Litto, Vera	Bus.	1-2 Avery
Dixon, Herbert	Agri., Fr.	1-2 Wewoka
Dixon, Myrtle	H. E., Fr.	1-2 Wewoka
Dixon, Horace	C. and M., Fr.	1-2 Fairfax
Dollarhide, Russell	Sec.	1 Morrison
Dolphin, Philip	Engr., Fr.	1-2 Tuskahoma
Donart, Grace	Bus.	1-2 Stillwater
Donavan, Dennis E.	Engr., Fr.	1-2 Kremlin
Donehoo, Grace	H. E., Sr.	1-2 Mangum
Doner, Otto	Bus.	1 Francis
Doty, Lucile	H. E., Jr.	SS-1-2 Stillwater
Gouglass, Glenn	C. E., Soph	1-2 Guthrie
Dryden, Marion	Sec. t.	-2 Stillwater
Dryden, Mollie	Sec. t.	-2 Stillwater
Dugan, Lenore	H. E., Fr.	1-2 Walter
Dungan, Ura	Unclassified	1-2 Beggs
Duncan, Ray	Sec.	1-2 Glencoe
Duncan, Shirley	Sec.	1-2 Wynona
Duncan, Wayne	Sec.	1 Wynona
Dunn, Lucile	Sec.	1-2 Yale
Dye, Jessie	H. E., Fr.	1-2 Stillwater
Dyer, Fannie	Sec.	1-2 Quinton
Dyer, Ruby L.	Sec.	1 Centrahoma
Eads, Iva	Bus.	SS-1-2 Stillwater
Eastwood, Richard	Sec.	1 Morrison
Eaton, Edna	Sec.	1-2 Stillwater
Eaton, Donald	Sec.	1 Colorado Springs, Colorado
Eaton, Cecil Howard	Sec.	1-2 Stillwater
Eberhart, Anna	Sec.	1-2 Perkins
Edmisson, Felix	P. C. A.	1-2 Gate
Edwards, Marvin	Edu., Fr.	1-2 Dodge
Edwards, Charles	Vocational	-2 Okarche
Elledge, Lester E.	Sec.	1-2 Howard, Kansas
Emert, Glen O.	P. C. A.	1-2 Stillwater
Emert, Elmina	Sec.	1-2 Stillwater
Emmons, Clarence	E. E., Sr.	SS-1-2 Guthrie
Erlenmaier, Earl E.	P. C. A.	1 Geary
Esslinger, Charles	C. and M., Fr.	1-2 Broken Arrow
Ethridge, Ernest	C. and M., Fr.	1-2 Cold Springs
Evanhoe, Bernard	P. C. E.	1 Ralston
Evans, Harley	Sec.	1 Gerty
Evans, Martha	Bus.	1 Columbia, Missouri
Evans, Howard	M. E., Soph	1 Dewey
Ewton, Homer	Bus.	1-2 Doxey
Fairchild, Charles	P. C. A.	1-2 Morrison
Fairchild, Helen	Sec.	1-2 Morrison
Fairchild, Louella	Sec.	1-2 Morrison
Fairless, Leta	Special	1-2 Tonkawa
Falconer, Margaret	Edu., Jr.	1-2 Cheyenne
Farrington, William	Sec.	1-2 Aradarko
Fatheree, Emmert	Engr., Fr.	1-2 Chickasha
Fennema, Pete	Agri., Fr.	1-2 Lawton
Ferguson, Mack	Bus.	1-2 Davis

NAME	COURSE	ADDRESS
Fetzer, Dale	Agri., Fr.	1-2 Helena
Fewell, Rollo	Agri., Soph	1-2 Muskogee
Finnell, Lena	Bus.	1-2 Orlando
Finney, Henry	P. C. A.	1 Davidson
Fish, Wayne	M. E., Sr.	1-2 Helena
Fisher, Golda	Sec.	1-2 Yale
Fisher, Teague S.	Dairy, Jr.	1 Clinton
Fisher, Scott	Sec.	1 Avery
Fitch, George	P. C. A.	-2 Lawton
Fitzsimmons, Robert	P. C. A.	1 Wann
Fleak, Berl	P. C. A.	1-2 Muskogee
Fleming, Lawrence	Bus.	1 Drummond
Flower, Florence	Sec.	-2 Stillwater
Flower, Hazel	Sec.	-2 Stillwater
Fly, Sherwood	S. and L., Fr.	1-2 Fairfax
Foley, Richard	Engr., Fr.	1 Fairfax
Folk, Joe	Engr., Fr.	1-2 Lawton
Folk, John B.	E. E., Jr.	1-2 Lawton
Ford, Bland	Sec.	SS-1-2 Monroe
Forrester, Nellie	H. E., Jr.	1-2 Stratford
Fortner, Eunice	Bus.	1-2 Stillwater
Foster, Don C.	C. and M., Fr.	1-2 Kingfisher
Foster, Harry	Engr., Fr.	1-2 Stillwater
Foster, Annabel	Sec.	1-2 Coyle
Foster, Ray	Agri., Fr.	1 Blackwell
Fox, Aletha	Bus.	1-2 Glencoe
Francis, Kenworthy	Engr., Fr.	SS-1 Tulsa
Francis, Annie	Sec.	1 Stillwater
Franklin, Madge	H. E., Fr.	1-2 Stillwater
Franklin, Leola	Bus.	-2 Grimes
Franklin, Edgar E.	P. C. A.	1-2 Estella
Franklin, John B.	P. C. E.	1-2 Estella
Freeny, Homer M.	Sec.	1-2 Caddo
French, James	Sec.	1 Stillwater
Fretwell, Martha	H. E., Fr.	1-2 Henryetta
Friedemann, Otto	S. and L., Soph	1-2 Stillwater
Friedemann, Adolph	Engr., Fr.	-2 Stillwater
Friedemann, Paul	Engr., Fr.	1-2 Stillwater
Grier, Gould	Agri., Fr.	1-2 Sulphur
Frost, Reuben	Agri., Fr.	1-2 Stillwater
Frost, Mark	Sec.	1-2 Stillwater
Fry, Curtis	Agri., Soph	1-2 Thomas
Rutoransky, Henry	S. and L., Fr.	1-2 Haileyville
Gage, William	Agri., Fr.	1 Atoka
Gaines, Ralph	Sec.	1-2 Afton
Gallagher, Clifford	Special	1 Stillwater
Gallup, Horace B.	P. C. A.	1 Gray
Garner, Spurgeon	Vocational	1-2 Yale
Garner, J. D.	Bus.	1 Kiowa
Garrett, Jennings	Bus.	-2 Holdenville
Garringer, Clara	H. E., Fr.	1-2 Medford
Gartman, May	Edu., Fr.	1-2 Cushing
Gayman, Byron	Agri., Fr.	SS-1-2 Tryon
Gayman, Sue	H. E., Soph	1-2 Tryon
Geller, Kate	Sec.	1-2 Glencoe
Gentry, Irma	C. and M., Fr.	1-2 Pawnee
George, Faber	C. E., Soph	1-2 Ravia
Geren, Louis C.	A. H., Sr.	1 Fort Smith, Arkansas
German, Martha	Bus.	-2 Glencoe
Gibbons, Meigs	Special	1 Purcell
Gibson, George	Sec.	1-2 Pauls Valley
Gilbert, Ruth	Sec.	1-2 Salt Fork
Gilbert, Edith	Bus.	1-2 Glencoe
Gilbert, Bina M.	Sec.	1-2 Salt Fork
Gilbert, Alva	Sec.	1-2 Salt Fork
Gilbert, Leo D.	P. C. A.	1-2 Salt Fork
Gilbert, Bertha	P. C. E.	1-2 Lamont
Gilchrist, Jim	Special	SS-1-2 Stillwater
Giles, Alfred	P. C. A.	1-2 Seiling
Gilleland, Zealan	Edu., Jr.	1-2 Anna, Texas
Gilbert, Earl	Sec.	1-2 Wanette
Gilliam, Winnie	H. E., Jr.	1-2 Chandler
Gilliam, Floyd	S. and L., Jr.	1-2 Erick
Glazier, Floyd	P. C. A.	1-2 Kiel
Glazier, Hazel	Sec.	1 Kiel
Glendening, George	C. E., Soph	1-2 Hartshorne

NAME	COURSE	ADDRESS
Goe, Walter R.	Agri., Sr.	1-2 Hayward
Goe, Edith	Sec.	SS-1-2 Hayward
Goldsmith, Earl R.	P. C. A.	1-2 Atmore, Alabama
Goldsmith, Rolland I.	P. C. A.	1-2 Atmore, Alabama
Gool, Moxie	P. C. A.	1-2 McAlester
Goodwin, Mabel	Edu., Fr.	1-2 Moody, Arkansas
Goodwin, Rufus Q.	Edu., Fr.	1-2 Salem, Arkansas
Goold, Christine	H. E., Jr.	1-2 Glencoe
Gordon, Ellen	Bus.	1-2 Stillwater
Gourley, Lawrence	Sec.	1-2 Grandfield
Graham, Irl D.	P. C. A.	1-2 Dalhart, Texas
Graham, Herbert A.	Agri., Soph.	1-2 Abbott, Arkansas
Graham, Mary	Sec.	1-2 Wynona
Graham, Grace	H. E., Soph.	1 Claremore
Granam, Mark	Sec.	1 Morrison
Grantham, James W.	Sec.	1-2 Bakchito
Graves, Helen C.	H. E., Fr.	1-2 Hugo
Graves, Mary	Sec.	1 Perkins
Graves, Joseph	P. C. E.	1 Putnam
Graves, Earl R.	P. C. E.	1 Putnam
Gray, Julia	H. E., Sr.	1-2 May
Gray, Earle W.	E. E., Soph.	1-2 Guthrie
Gray, Alonza	Sec.	-2 Stillwater
Green, Gertrude	H. E., Fr.	1-2 Wakita
Green, Mrs. Wm. J.	Special	1 Stillwater
Green, Jess	C. and M., Fr.	1-2 Lone Wolf
Green, Eldridge Burtis	Agri., Jr.	1-2 Cestos
Green, Mabel	Sec.	1 Stillwater
Green, Mary	Sec.	1-2 Cestos
Green, Elmer	Sec.	-2 Port
Greenfield, Mrs. Willa	Special	1 Camargo
Griener, Agnes	Sec.	SS-1-2 Stillwater
Griffin, Fay	P. C. A.	1-2 Woodford
Grimes, Lucille	Edu., Fr.	1-2 Walter
Grimes, D. R.	Bus.	1-2 Walter
Grissom, Harry	Sec.	-2 Stillwater
Gudgel, Alma	Bus.	1 Stillwater
Hall, Georgia	H. E., Soph.	1-2 Stillwater
Hall, John Irvin	P. C. A.	1 Stamford, Texas
Hall, John Livingston	Special	1 Pawhuska
Ham, Joe	E. E., Jr.	1-2 Dickens, Texas
Ham, Ola	Bus.	-2 Stillwater
Hamill, Velta Gale	Sec.	1 Grandfield
Hamill, Paul	Sec.	1 Grandfield
Hamlin, Esther L.	Bus.	1 Stillwater
Hamilton, Rav W.	S. and L., Sr.	1-2 Pond Creek
Hamlin, Hyral	Bus.	SS-1-2 Stillwater
Hampton, Pearl	H. E., Fr.	1-2 Bradley
Hand, Dent	Agri., Fr.	1-2 Salt Fork
Hanifan, Annabelle	Sec.	1 Earlsboro
Hanna, O'Lula	Edu., Jr.	1-2 Braymer, Missouri
Hardberger, Cessna	Bus.	-2 Francis
Harlow, Rex	Special	-2 Oklahoma City
Harmon, Thelma	Sec.	SS-1-2 Vinita
Harmon, Irene	H. E., Fr.	SS-1-2 Stillwater
Harnden, Mrs. Marie	Sec.	1 Stillwater
Harold, Gladys	Sec.	1 Stillwater
Harper, Roy E.	Agri., Soph.	1-2 Stillwater
Harrell, Otis C.	Sec.	1 Corlell
Harrington, John	Sec.	1-2 Stillwater
Harris, Thomas	P. C. A.	1 Stillwater
Harrison, Benj. F.	C. and M., Soph.	SS-1-2 Stillwater
Harrison, Roy F.	Engr., Fr.	SS-1-2 Davenport
Harntebower, Ione	H. E., Soph.	SS-1-2 Stillwater
Hartle, Orra F.	Engr., Fr.	1-2 Cestos
Hartpence, Bessie	Bus.	-2 Stillwater
Harvey, Ruth	H. E., Fr.	SS-1-2 Stillwater
Hastings, Anna	Sec.	1-2 Perkins
Hastings, Lois	Sec.	1-2 Perkins
Hastings, Howard K.	P. C. A.	1-2 Perkins
Haston, Dewey	Bus.	1 Stillwater
Hatch, Thomas	Agri., Soph.	1-2 Enid
Hatcher, Otto	Agron., Sr.	1-2 Stonewall
Hawkins, Raymond	Bus.	-2 Hereford, Texas
Hayes, Alberta	Bus.	1-2 Red rock

NAME	COURSE	ADDRESS
Hayes, William A.	Sec.	1-2 Luter
Hayman, Roy E.	Unclassified	1 Stillwater
Hayman, Bryan	Sec.	1 Stillwater
Hayman, Hattie	Bus.	-2 Stillwater
Heck, Helen	H. E., Fr.	1-2 Helena
Hendershot, Lucile	Bus.	-2 Pond Creek
Hendershot, Leonard	Engr., Fr.	1-2 Lamont
Henderson, Ora	Sec.	1
Henderson, Ida Maye	Edu., Sr.	1 Tribbey
Henderson, Myron	Sec.	1 Yale
Henderson, Robert	Sec.	1 Tribbey
Henderson, DeWitt	Sec.	1 Tribbey
Hendricks, Elmer	Bus.	-2 Homestead
Hendrickson, Asher	Engr., Fr.	1-2 Boynton
Hendrickson, Margaret	H. E., Fr.	1-2 Boynton
Hendrickson, Hugh	Sec.	1-2 Boynton
Hendricks, Rex B.	C. and M., Fr.	1-2 Hobart
Henry, Ingram	Bus.	1 Ardmore
Henson, Homer	Sec.	1-2 McCoud
Hertzler, Welcome	Agri., Fr.	1-2 Aline
Hertzler, Joy	Edu., Soph.	SS-1-2 Aline
Hartzler, Pleasant	Agri., Fr.	SS-1-2 Aline
Hesser, Sam	Sec.	1-2 El Paso, Texas
Hesser, Isaac T.	S. and L., Fr.	1-2 Stillwater
Hetherington, Creed	Engr., Fr.	1-2 Morrison
Heusel, Anola	Sec.	1-2 Salt Fork
Heusel, Charles	Agri., Fr.	1-2 Salt Fork
Hewett, Frank	Sec.	1-2 Middleberg
Hickey, Bryce	Engr., Fr.	1-2 Sapulpa
Hicks, Clifton A.	Agri., Fr.	1 Haskell
Hicks, Beatrice	H. E., Fr.	1-2 Chandler
Hildebrand, Mrs. Nettie	H. E., Sr.	1-2 Stillwater
Hildebrand, Eric B.	Agron., Sr.	1-2 Stillwater
Hildebrand, Warsaw	P. C. E.	1 Bison
Hildebrand, Schley	P. C. E.	1 Bison
Hill, Elmer Yale	Engr., Fr.	1-2 Effa
Himes, Edna	Bus.	1-2 Glencoe
Hinkel, William S.	C. and M., Fr.	1-2 Stillwater
Hirschi, Homer H.	Arch., Sr.	1 Iowa Park, Texas
Hirzel, Homer H.	C. and M., Soph.	1-2 Guthrie
Hockaday, Lillie	Sec.	1-2 Guthrie
Hoeffer, Cecil	Bus.	1-2 Stillwater
Hogan, P. H.	Sec.	SS-1 Bethel
Hogle, Ellen	H. E., Jr.	SS-1-2 Stillwater
Hoke, Jesse	C. and M., Fr.	1-2 Stillwater
Hoke, James	Sec.	1-2 Stillwater
Hoke, Mrs. Estelle	H. E., Fr.	1-2 Stillwater
Holbrook, Lillian	Bus.	1-2 Stillwater
Holman, Darline M.	Bus.	1-2 Hugoton, Kansas
Holmes, Nita	H. E., Fr.	SS-1-2 Stillwater
Hopkins, Maude	H. E., Sr.	SS-1-2 Stillwater
Hopkins, Blanche	H. E., Sr.	SS-1-2 Stillwater
Horn, Arthur	Agri., Fr.	1-2 Blackwell
Horner, Clifford	Sec.	1-2 Stillwater
Hoskinson, Helen	H. E., Sr.	1 Stillwater
Hostetter, Eston	Arch., Jr.	1-2 Calumet
Hostick, Albert B.	C. and M., Fr.	-2 Verden
Hott, Violet	Sec.	1 Wakita
Houck, Kathleen	H. E., Jr.	1-2 Stillwater
Houck, John	C. and M., Soph.	1-2 Stillwater
Houck, David	Bus.	1 Stillwater
Housh, Ernest	Sec.	1 Stillwater
Housh, Cecil	S. and L., Fr.	1-2 Stillwater
Houston, Henry M.	Arch., Soph.	1-2 St. Joseph, Missouri
Howard, Marion	Edu., Fr.	1-2 Wewoka
Howard, Clara	Edu., Fr.	1-2 Wewoka
Howard, Charley	P. C. E.	1 Mounds
Howe, Allen	Sec.	1 Stillwater
Hoyt, Ruth	Bus.	1-2 Avery
Hubenthal, Harry	Sec.	1-2 Oklahoma City
Huckstep, James T.	Sec.	1-2 Stillwater
Hudson, James	Sec.	1-2 Castle
Huff, Robert	Bus.	1 Stillwater
Hughes, Robert Earl	Sec.	1-2 Perry
Hughes, Mrs. S. D.	Bus.	1-2 Stillwater
Hughes, Glayds	Bus.	1-2 Stillwater

REGISTER OF STUDENTS

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NAME	COURSE	ADDRESS
Hughes, Will	Sec. 1-2	Ames
Hughes, Grace	Bus. SS-1	Stillwater
Hughes, Charlie	P. C. A. 1	Purcell
Hughett, Merl	Sec. 1-2	Stillwater
Hunt, George	Sec. 1	Pawnee
Hunt, Mrs. Clara	Bus. 1	Stillwater
Hunt, Esther	Bus. 1	Stillwater
Hunter, Oscar	Agri., Fr. 1-2	Shawnee
Hurst, Richard	C. and M., Fr. 1-2	Pocassett
Hutcheson, Bessie	Sec. SS-1-2	Stillwater
Ikard, Harrison E.	V. M., Jr. 1	Chickasha
Ingram, Will	Sec. -2	Okemah
Isenberg, Olivia	H. E., Jr. SS-1-2	Stillwater
Isenberg, Verna	Edu., Jr. SS-1-2	Stillwater
Ives, Hannah	Sec. 1	Avery
Jack, Ella	Special 1	Stillwater
Jackson, Leo L.	Sec. 1-2	Shamrock
Jackson, Ola	Bus. 1-2	Stillwater
Jackson, Troy	C. and M., Fr. -2	Holdenville
Jackson, Jewell	P. C. E. 1	Wewoka
Jacobs, Louella	Sec. 1-2	Stillwater
Jacobs, Eureka	Edu., Fr. 1-2	Stillwater
Jacobs, Caton	P. C. A. 1-2	Stillwater
Janeway, Harold	C. and M., Sr. 1-2	Stillwater
Jarvis, Gertrude	P. C. E. 1	Olvey, Arkansas
Jehlicka, Ludvik	Sec. 1-2	Goltry
Jenkins, Henry E.	Edu., Sr. 1-2	Frederick
Jenkins, Henry B.	S. and L., Fr. SS-1-2	Stillwater
Jenkins, Bonnie M.	Sec. SS-1-2	Stillwater
Jenkins, Ernest	Sec. SS-1-2	Stillwater
Johnson, Esther	Bus. -2	Stillwater
Johnson, Willie D.	Sec. 1-2	Crowder
Johnson, Henry J.	E. E., Sr. 1-2	Helena
Johnson, Janie M.	Edu., Fr. 1-2	Pawnee
Johnson, Wilbur	Agri., Fr. -2	Newkirk
Jones, Aline	Bus. 1-2	Stillwater
Jones, Doris	Bus. SS-1-2	Stillwater
Jones, C. Leslie	Bus. 1-2	Purcell
Jones, Caroline	H. E., Jr. 1-2	Oklahoma City
Jones, Goldia	H. E., Soph. SS-1-2	Stillwater
Jones, Emily	Sec. 1-2	Stillwater
Jones, Ray	C. and M., Fr. 1-2	Stillwater
Jones, Thocas R.	Agri., Fr. 1-2	Chickasha
Jones, Ruth	Sec. 1-2	Stillwater
Jones, Orville L.	Sec. 1	Glencoe
Jones, Emsley E.	Bus. 1	Centrahoma
Judeman, George	Sec. 1-2	Edna
Jueschke, Anthony	P. C. E. 1-2	Kingfisher
Kane, Cora	H. E., Soph. SS-1-2	Stillwater
Katz, Sigmund	Agri., Soph. 1-2	Sapulpa
Keen, Paul	Engr., Fr. 1-2	Cheyenne
Keiffer, Roscoe	Agri., Fr. 1-2	Helena
Keller, Harold	E. E., Soph. 1	Davenport
Kemp, Harvey G.	C. and M., Soph. SS-1-2	Guthrie
Kenyon, Freda	Sec. 1-2	Kaw
Keotah, Perry	Special 1-2	Anadarko
Kephart, Harry C.	Bus. 1	Carmen
Kerr, John H.	Agri., Fr. 1	McAlester
Keudell, Grace	Bus. SS-1	Stillwater
Keys, Norma	H. E., Fr. 1-2	Ocheltaa
Keys, Ona	Bus. 1	Stillwater
Kilpatrick, Maude	H. E., Jr. 1-2	Hunter
King, Nancy Ann	H. E., Soph. SS-1-2	Enid
King, Christie	P. C. A. 1-2	Jones
King, Vincent L.	Sec. 1-2	Stillwater
King, Willie	Bus. 1	Hampton, Arkansas
Kinsey, Esther	H. E., Fr. 1-2	Hoffman
Kirkpatrick, Ethel	Bus. 1-2	Stillwater
Kittridge, Malcolm B.	Engr., Fr. 1-2	Shawnee
Knight, Joe	Sec. -2	Stillwater
Knight, Ivan	Sec. -2	Stillwater
Knight, Eugene	Agron., Jr. 1-2	Stillwater
Knight, Clayles E.	Sec. -2	Sentinel
Kniseley, Bert F.	Engr., Fr. 1	Checotah

NAME	COURSE	ADDRESS
Knox, Verne	Sec. 1	Perkins
Kramer, Loyd	Sec. 1	Maramec
Kramer, Glenna	Edu., Fr. SS-1-2	Maramec
Kramer, Teddy	Sec. 1-2	Maramec
Kraemer, Florence	Edu., Fr. 1-2	Perry
Kratzer, Roy E.	Engr., Fr. 1-2	Red Rock
Kratzer, Folrence	Bus. -2	Red Rock
Krisher, Sherman	Agron., Sr. 1	Walter
Krone, Jessie	H. E., Sr. 1-2	Chandler
Kuhlmeier, Iva	Edu., Fr. 1-2	Stillwater
Kuhlmeier, Leslie	Sec. 1-2	Stillwater
Kuhl, George	Bus. 1	Wellston
LaBohn, Henry	Agri., Fr. 1-2	Oklahoma City
Lahr, Herbert	A. H., Soph. 1-2	Waynoka
Lair, Hernlin L.	P. C. A. 1-2	Joens
Landis, Esther	Bus. 1-2	Stillwater
Lane, Carmen	H. E., Jr. 1-2	Cleveland
Lane, Lillie	Bus. -2	Stillwater
Lane, Datsy	Bus. -2	Stillwater
Laney, Marcus	P. C. A. 1-2	Boswell
Larrick, Byron	P. C. E. 1	Bison
Lauderdale, Ruby	S. and L., Sr. SS-1-2	Cushing
Laughlin, Mary	H. E., Jr. SS-1-2	Stillwater
Lawellin, William	Bus. 1-2	Goltry
*Ledbetter, Georgia	Bus. 1-2	Yale
Lawhorn, Velma L.	Sec. -2	Stillwater
Lawton, Eva	Sec. -2	Seiling
Leslie, Lewis	S. and L., Sr. 1-2	Stillwater
Leslie, Floyd	Sec. 1	Gower, Missouri
Lewis, Alta	Sec. 1-2	Ponca City
Lewis, Inez	H. E., Jr. SS-1-2	Ponca City
Lewis, Jay	Sec. 1-2	Ponca City
Lewis, Darr	Sec. 1	Ponca City
Liebhart, Marion	Agri., Fr. 1-2	Drummond
Lillie, Jessie	Bus. 1-2	Stillwater
Lively, Hubert	Sec. 1-2	Okemah
Livergood, Alta	Bus. 1-2	Newkirk
Loneragan, John	Sec. 1-2	Pawnee
Long, Leona	Bus. SS-1-2	Stillwater
Long, Amy	Edu., Sr. 1-2	Chandler
Long, Viola	Sec. SS-1	Avery
Lorg, James S.	P. C. E. 1	Billings
Lookabaugh, Guy	Agri., Fr. 1-2	Watonga
Loop, Thressa	Bus. 1	Yale
Loosen, Max	Sec. 1-2	Okarche
Loosen, Ernest	Sec. 1-2	Okarche
Loveless, Jesse	P. C. A. 1-2	Delaware
Lovell, Robert E.	P. C. E. 1-2	Wichita Falls, Texas
Lows, Nann	Sec. 1-2	Agra
Lowe, Ethel	Sec. 1	Agra
Lowrance, Charles O.	Agri., Fr. 1	Sulphur
Lowry, Mrs. Orlo	Bus. 1	Stillwater
Lunger, Marion Earl	C. and M., Fr. 1-2	Covington
McBride, Thelma	Unclassified 1-2	Stillwater
McBride, Tom	Sec. 1	Stillwater
McCandless, Harvey	Vocational -2	Granite
McCarrel, Mrs. Fred	Edu., Sr. SS-2	Stillwater
McCarty, Todd	Sec. 1	Fairfax
McClain, Mae	Sec. 1	Stillwater
McClure, Genevieve	Bus. -2	Neodesha
McCoy, Madge	Sec. 1-2	Stillwater
McCroskey, Francenah	C. and M., Fr. 1-2	Stillwater
McCroskey, Edith	Bus. -2	Stillwater
McDougle, Tom	Agri., Fr. 1-2	Hadley, Texas
McFall, Frank	Agri., Fr. 1-2	Featherston
McGee, Florence	Sec. 1-2	Perkins
McGee, Bessie	Sec. 1-2	Perkins
McGee, Iris	H. E., Soph. 1-2	Waynoka
McGuinn, Mrs. Marie	Sec. 1	Stillwater
McInturff, Glenn	P. C. A. 1-2	Nardin
McInturff, Lloyd	P. C. A. 1-2	Nardin
McKee, Calvin	C. and M., Jr. SS-1	Stillwater
McKeel, William	Sec. 1	Ada
McKemie, Glen	Agri., Fr. 1-2	Coalgate

NAME	COURSE		ADDRESS
McKenzie, Parker	Sec.	1	Moutnain View
McKinnon, Letha	Sec.	1	Glencoe
McKinnon, J. J.	Arch., Soph.	1-2	Eddy
McKinnon, Charles	Sec.	1-2	Glencoe
McKnight, Goldie	Edu., Soph.	1-2	Agra
McKnight, Emmett	Sec.	1-2	Agra
McMillan, Martyn B.	Engr., Fr.	1-2	Oklahoma City
Madigan, Gladys	C. and M., Jr.	1-2	Ardmore
Madison, Carnelia	Sec.	1-2	Big Cabin
Madison, Beulah	Edu., Fr.	1-2	Big Cabin
Mahaffey, Max M.	M. E., Sr.	SS-1-2	Stillwater
Mahaffey, Katie	Sec.	SS-1-2	Stillwater
Main, Francis E.	Engr., Fr.	SS-1-2	Stillwater
Main, Harold	Bus.	1	Stillwater
Main, Lois	Sec.	1-2	Stillwater
Malernee, Beulah	H. E., Fr.	1-2	Walter
Mallory, Mazie	Edu., Sr.	1-2	Stillwater
Mallory, James	C. and M., Fr.	1-2	Stillwater
Mallory, Gladys	Sec.	1-2	Stillwater
Malone, Esther	Sec.	1	Stillwater
Maloy, Retta	Bus.	1-2	Mangum
Mann, Walter	Engr., Fr.	1-2	Checotah
Mantle, David LeRoy	C. E., Sr.	1-2	Stillwater
Mantle, Mrs. Celia	Edu., Jr.	1	Stillwater
Mantle, Mrs. Delia	Special	-2	Stillwater
Mapect, Charles	Engr., Fr.	1	Meno
Marble, Mable	Edu., Sr.	SS-1-2	Yale
Markland, James	Sec.	1-2	Stillwater
Markland, Waldo	C. and M., Fr.	1-2	Stillwater
Markland, Russell	Sec.	1-2	Stillwater
Markwell, Earl	Hort., Jr.	1-2	Stillwater
Markwell, Rachel	H. E., Jr.	SS-1-2	Stillwater
Markwell, Hazel	Edu., Sr.	SS-1-2	Stillwater
Marsey, Samuel	Sec.	1	Oklmulree
Marsh, William	Agron., Sr.	1-2	Long Beach, California
Marshall, Joseph	Engr., Fr.	1-2	Goodnight
Martin, LeRoy	Sec.	1	Stillwater
Martin, Frank	Edu., Fr.	1-2	Sallisaw
Martin, Archie O.	Edu., Sr.	1-2	Stillwater
Martin, Esther	H. E., Jr.	SS-1-2	Stillwater
Martin, George	Sec.	1	Hallett
Matthews, Roy C.	Engr., Fr.	1-2	Mulhall
Maxwell, Rodger W.	Unclassified	1	Atoka
May, Susie	Bus.	1-2	Scullin
May, Everett	Sec.	1-2	Oklahoma City
May, Roy	P. C. A.	1	Hendrix
Means, Vernon	Engr., Fr.	1-2	Stillwater
Means, Emory	Sec.	1	Stillwater
Meeker, Julian R.	C. and M., Soph.	1-2	Temple
Meeker, Beryl	Sec.	-2	Temple
Megee, John A.	P. C. E.	1-2	Mountain Park
Megee, Vernon E.	P. C. A.	1-2	Chandler
Melton, Mark	Sec.	1-2	Ames
Meredith, John B.	Special	-2	Tulsa
Merrifield, Martha	H. E., Fr.	1-2	Enid
Merrill, Roy	C. and M., Fr.	1-2	Stillwater
Mrreitt, Mildred	Bus.	-2	Pawnee
Merritt, Hazel D.	H. E., Fr.	112	Medford
Metcalf, Finis	Sec.	1-2	Galena
Millard, Byron	Sec.	1-2	Stillwater
Miller, Bennie C.	Bus.	1-2	Riesel, Texas
Miller, Gladys	Sec.	SS-1-2	Perkins
Miller, Bertha	Bus.	1	Glencoe
Molacek, Tom	Agri., Fr.	-2	Oklahoma City
Montgomery, Joel P.	Sec.	1	Valliant
Moore, Esther	Bus.	1-2	Stillwater
Moore, Foreman	Bus.	-2	Claremore
Moore, Samuel	Bus.	1-2	Sulphur
Moore, Vera	Bus.	1-2	Stillwater
Moore, Horatio	Sec.	SS-1-2	Stillwater
Morgan, Leonard	V. M., Fr.	1	Stillwater
Morgan, Alberta	Sec.	1	Tulsa
Morrell, Charles	Bus.	1-2	Hominy
Morris, Samuel	Sec.	1-2	Gerty

NAME	COURSE	ADDRESS
Morris, Pauline R.	Edu., Fr.	1-2 Stillwater
Morrison, Jesse	V. M., Fr.	SS-1 Noble
Morrison, Willis W.	Agri., Fr.	1-2 Bartlesville
Morrow, Edwin R.	P. C. A.	1-2 Prague
Moseley, Josie	H. E., Fr.	SS-1-2 Stillwater
Moseley, Mossie M.	H. E., Jr.	1-2 Stillwater
Moser, Lena	Edu., Fr.	1-2 Yale
Mount, Houston	Unclassified	1 Ada
Murphy, Nellie	Bus.	1-2 Avery
Murphy, Mrs. Edna	Bus.	-2 Stillwater
Murphy, Henry F.	A. H., Sr.	1-2 Glencoe
Murray, James	E. E., Jr.	1-2 Manitou
Myers, Eva	Bus.	1-2 Yale
Myers, George M.	E. E., Soph.	1-2 Shawnee
Myers, Ruth	H. E., Soph.	1-2 Oklahoma City
Myers, Muriel	Sec.	1-2 Yale
Myers, Margie M.	Edu., Fr.	1 Higgins, Texas
Nash, Orman	Agri., Fr.	1-2 Paden
Nault, Joe	Sec.	-2 Okeene
Neaves, Eunice	H. E., Fr.	1-2 Tryon
Neely, Lee B.	Sec.	1 Tishomingo
Nehrbass, Paul	P. C. A.	1-2 Catesby
Nelms, Mrs. Veda	Bus.	1-2 Stillwater
Nelms, E. B.	Edu., Sr.	1-2 Stillwater
Nelson, Edwin	P. C. A.	1-2 Ames
Nelson, Bendetta	Sec.	1-2 Stillwater
Nelson, Harvey	Sec.	1-2 Balco
Nelson, Hawthorne	Agri., Fr.	1-2 Stillwater
Neumayer, Eunice	H. E., Fr.	1-2 Medford
Neville, Wayne	Sec.	1 Fletcher
Newton, Pearl	Sec.	1-2 Stillwater
Niblack, Jake	Sec.	1-2 Bliss
Nixon, Carl	Bus.	-2 Stillwater
*Nicholas, Arley	Bus.	1 Hatfield, Arkansas
Norburg, Raymond	P. C. E.	1 Wann
Norman, Sims	Engr., Fr.	1-2 Ryan
Nuchols, Bert	Engr., Fr.	1-2 Austin, Texas
Oder, Hesper	H. E., Jr.	1-2 Arcadia
Oshler, Fann	Sec.	1-2 Harrisburg, Arkansas
Oshler, Laura	Edu., Fr.	1-2 Harrisburg, Arkansas
Oldham, Lola	H. E., Jr.	SS-1-2 Stillwater
Oldham, Roy	Sec.	1-2 Stillwater
Olintine, Hazel	H. E., Sr.	1-2 Muskogee
Olintine, Ruth	Special	1-2 Muskogee
Olmstead, Eva	Sec.	1-2 Ripley
Orner, Sopha	Sec.	1 Goodnight
Orr, Don M.	A. H., Sr.	1-2 Earlsboro
Outhier, Virgil	H. E., Fr.	SS-1-2 Homestead
Outhier, Douglas	P. C. A.	1-2 Homestead
Outhier, Francis	P. C. A.	-2 Homestead
Overman, Mrs. Rosalie	Bus.	1-2 Stillwater
Owens, Christine	Sec.	-2 Purcell
Owens, Margaret	Sec.	-2 Purcell
Owsley, William A.	A. H., Sr.	1-2 Stillwater
Owsley, Byrla	Edu., Soph.	-2 Stillwater
Painter, Buell	C. and M., Fr.	1-2 Stillwater
Painter, Ray D.	S. and L., Fr.	1-2 Afton
Park, H. Clay	Sec.	SS-1-2 Stillwater
Parker, Orville H.	Sec.	1-2 Broken Arrow
Parker, Evelyn	Sec.	1 Glencoe
Parman, Vera	Sec.	SS-1-2 Stillwater
Patterson, Mrs. Faye	H. E., Fr.	1 Wichita, Kansas
Patterson, Gladys	S. and L., Soph.	SS-1-2 Walter
Patterson, Albert	Bus.	1 Francis
Patterson, Alfred	Bus.	1 Francis
Patton, Nell	Bus.	SS-1 Stillwater
Patton, Ruth	Bus.	1-2 Stillwater
Patton, Florence	Sec.	1-2 Stillwater
Patton, W. D.	Agri., Fr.	-2 Muldrow
Paul, Henry D.	Engr., Fr.	1-2 Cushing
Pecha, Louis J.	Bus.	1-2 Goltry
Pennington, Charles	Sec.	1 Ada
Penny, James H.	Agri., Fr.	-2 Glencoe

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NAME	COURSE	ADDRESS
Penquite, Robert	Agri., Fr	1-2 Chickasha
Pepin, Frank	Bus.	1 Stillwater
Percival, Kathryn	H. E., Soph	SS-1-2 Stillwater
Percival, M. C.	P. C. E.	1-2 Robstown, Texas
Percy, Fred E.	A. H., Soph	1-2 Thomas
Perrier, James R.	Sec.	1 Skiatook
Perryman, Ina	Bus.	-2 Stillwater
Peters, Galen E.	Sec.	1 Ames
Peters, James	Bus.	1 Pawhuska
Peterson, Glen	P. C. E.	1 Tuttle
Phenicie, Frank T.	Special	1 Sealy, Texas
Phillips, Marion	Sec.	1 Hollis
Pierson, Helen	Sec.	1-2 Pond Creek
Pierson, Roy	Engr., Fr	1-2 Pond Creek
Pierson, Marie	Edu., Sr.	SS-1-2 Pond Creek
Pinkerton, Ted	Sec.	1 Elk City
Pitzer, Florence	Edu., Fr	SS-1-2 Stillwater
Pitzer, Mary	Sec.	SS-1-2 Stillwater
Pitzer, Sydnie	Sec.	SS-1-2 Stillwater
Plummer, Kittie	Sec.	1 Clarita
Pock, George	P. C. E.	1-2 Stillwater
Porter, Charles	Bus.	1-2 Custer
Porter, Roy Earl	Sec.	1-2 Billings
Porter, Sophia	Sec.	1-2 Billings
Porter, Troy	Engr., Fr	1 Billings
Potter, Hulda	H. E., Soph	SS-1-2 Stillwater
Powell, Bessie	H. E., Sr.	1-2 Stillwater
Powell, Earl H.	Engr., Fr	1-2 Charleston, Arkansas
Powers, Leila	Sec.	-2 Stillwater
Powers, Grace	H. E., Fr	1-2 Mangum
Powers, Eugene	Sec.	-2 Stillwater
Powers, James C.	Engr., Fr	1 Oklahoma City
Prather, Richard	Engr., Fr	1-2 Hobart
Pratt, Vera	Sec.	1-2 Lucien
Prollock, William	P. C. A.	1-2 Orlando
Prowant, Wayne	Sec.	1-2 Agra
Prowant, Lucy	Special	1 Stillwater
Purtee, Charlie	P. C. A.	1 Reason
Purviance, William	P. C. A.	1-2 Guthrie
Purviance, Nellie	Sec.	1-2 Guthrie
Putman, O. L.	A. H., Sr.	1-2 Woodford
Putney, E. M.	A. H., Jr.	1 Oklahoma City
Rabon, Perston M.	Sec.	1 Kinta
Rader, Frank	P. C. A.	1-2 Glencoe
Raiford, Alice	Special	-2 Stillwater
Rains, Elsie	Bus.	-2 Perkins
Ralston, Marie	Bus.	-2 Glencoe
Ramsey, Eugene	Sec.	1-2 Cushing
Ramsey, Kenneth	P. C. A.	1 Cushing
Randolph, Robert R.	Sec.	1-2 Stillwater
Rankin, Price	Sec.	-2 Gage
Rapp, Miriam	H. E., Soph	SS-1-2 Stillwater
Rasmussen, Sylvia	Sec.	SS-1-2 Hayward
Ratzloff, Rudolph	Sec.	1-2 Meno
Ray, Walter	C. and M., Fr	1-2 Atoka
Ray, Wilbur	Agri., Fr	1-2 Stillwater
Ray, Kenneth	Agri.,	1 Lawton
Reed, Nelle	Bus.	-2 Sunnyside, Washington
Reeve, Pearl	Bus.	1-2 Mustang
Reid, Lynn	Bus.	1 Stillwater
Reid, Faye	Bus.	1 Stillwater
Reid, John R.	Bus.	1 Stillwater
Remy, Myrtle	Bus.	1 Paris, Texas
Reneau, Clarence V.	P. C. A.	1-2 Hobart
Rentfrow, Sybil	Sec.	1-2 Perkins
Reynolds, Clarence	Engr., Fr	1-2 Pond Creek
Reynolds, Ernest	P. C. A.	1 Pond Creek
Reynolds, Leland	P. C. A.	1 Pond Creek
Riggs, Dewey	P. C. A.	SS-1-2 Erick
Riley, Jessie	Sec.	SS-2 Stillwater
Robbins, Winona	Bus.	1-2 Dawson, Texas
Roberts, Mrs. D. M.	Special	1-2 Stillwater
Roberts, David M.	Unclassified	1-2 Stillwater
Roberts, Perry	P. C. A.	1-2 Stillwater
Roberts, Paul	Sec.	1 Hollis

NAME	COURSE	ADDRESS
Roberts, Edward	Sec.	1 Okmulgee
Robertson, Lola	Edu., Fr.	1-2 Stillwater
Robertson, Philo	Bus.	1 Stillwater
Robertson, Bess	Bus.	SS-1 Stillwater
Robinson, Maurice	Sec.	1-2 Hominy
Robinson, Ethel	Sec.	1-2 Glencoe
Robinson, Charles J.	C. and M., Fr.	1 Colorado Springs, Colorado
Robinson, Charles H.	C. and M., Jr.	1-2 Stillwater
Robinson, Richmond	Sec.	1 Elk City
Robinson, Eugene	C. and M., Fr.	-2 Stillwater
Roddy, Earl	Sec.	-2 Fort Cobb
Rogers, Tipton	Agri., Fr.	1 Grove
Roof, Blanche	Sec.	1 Tryon
Roops, Marguerite	H. E., Fr.	1-2 Chandler
Roope, Ruth	H. E., Soph.	1-2 Chandler
Rosenbaum, William	Edu., Sr.	1-2 New York, N. Y.
Rouse, Edna	Sec.	1-2 Pleasant Valley
Rouse, Elva	Sec.	1-2 Pleasant Valley
Rowlands, Marvin L.	P. C. A.	1-2 Blackwell
Rowley, Ruth	Special	1 Kiowa
Ruff, Peggy	Sec.	1 Kildare
Rusher, Harold	Engr., Fr.	1-2 Yale
Rusher, Helen	H. E., Fr.	1-2 Yale
Sadlo, Eddie	Engr., Fr.	1-2 Prague
Sager, Miles H.	Sec.	1 Glencoe
Sanborn, Elosabee Jane	Special	-2 Stillwater
Sanders, Leslie M.	Bus.	1-2 Pocasset
Sanders, Merle	Engr., Fr.	1-2 Kingfisher
Sawyer, George	P. C. A.	1 Walter
Sayre, Gladys	Sec.	1-2 Morrison
Sayre, Joy	Sec.	1-2 Morrison
Schacher, James	Bus.	1-2 Stillwater
Schacher, Clara	Sec.	SS-1-2 Stillwater
Schacher, Saeue	Sec.	SS-1-2 Stillwater
Schaefer, Henry J.	Special	1-2 Schulenburg, Texas
Schatz, Ruth	Special	1-2 Tonkawa
Schnurr, Angie	H. E., Sr.	1-2 Orlando
Schooler, Josie	Sec.	1-2 Stillwater
Schooler, Ollie	Sec.	SS-1-2 Stillwater
Schooler, George	V. M., Jr.	SS-1 Stillwater
Schrammel, Rose	Sec.	-2 Orlando
Schroeder, Archie	Sec.	1 Yale
Schuhmann, Ernstine	S. and L., Soph.	1-2 Rowena, Texas
Scott, Ruth	Bus.	1 Yale
Scott, Theresa M.	H. E., Fr.	1-2 Sapulpa
Scott, Christian B.	Edu., Fr.	1-2 Meno
Scott, Hugh	Sec.	1 Stillwater
Scroggs, Ada	Edu., Soph.	1-2 Stillwater
Scruggs, Ernest	Bus.	-2 Minco
Seaback, Clarence	Agri., Fr.	1 Blackwell
Sebastian, Fletcher	Bus.	1-2 Stillwater
See, Iva	H. E., Fr.	1-2 Tonkawa
Selva, Layla	H. E., Sr.	SS-1-2 Stillwater
Settergreen, Lottie	H. E., Soph.	1-2 Lamotn
Sexauer, Genevieve	Bus.	1-2 Guthrie
Shanklin, Roscoe	Engr., Fr.	1-2 Medford
Shannon, Raymond	C. and M., Fr.	1-2 Perkins
Sharp, Alvis	Sec.	-2 Tulsa, Texas
Snaw, Clarence	E. E., Soph.	1-2 Wewoka
Sheets, Marion	Sec.	1-2 Tonkawa
Sheets, Claude	Sec.	1 Tonkawa
Sherburne, J. A.	Edu., Soph.	SS-1-2 Cordell
Sherman, Clyde	Sec.	1 Mulhall
Sherman, Ola	Sec.	-2 Mulhall
Sherrard, Olive	H. E., Soph.	1-2 Centerville, Iowa
Sherrard, Lois	Sec.	1-2 Orlando
Sherwood, E. C.	Agri., Sr.	1-2 Lomax, Illinois
Shingleton, Marie	Bus.	SS-1-2 Stillwater
Shipman, Buck	P. C. A.	1 Marsden
Shoop, Roy S.	P. C. A.	1-2 Gracemont
Shurtz, Clifford	P. C. E.	1-2 Blessing, Texas
Sieglinger, Leona	Edu., Jr.	1-2 Stillwater
Simmons, Mrs. C. D.	Special	1-2 Stillwater
Skaer, Opal	H. E., Fr.	1-2 Augusta, Kansas
Skaer, Pauline	Sec.	1-2 Augusta, Kansas

REGISTER OF STUDENTS

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NAME	COURSE	ADDRESS
Skinner, E. Ray	Edu., Jr.	SS-1-2 Stillwater
Skinner, E. Ray	A. H., Jr.	1 Billings
Slaughter, Jessie	Bus.	1-2 Stillwater
Slovick, Samuel	C. and M., Fr.	1-2 Zembrovo, Russia
Smart, Faye	Bus.	1-2 Stillwater
Smith, Willie C.	Agri., Fr.	1-2 Omega
Smith, Laura	Bus.	1-2 Sapulpa
Smith, J. M.	Sec.	1-2 Grandfield
Smith, Mildred	Sec.	1-2 Stillwater
Smith, Elmer	Vocational	1-2 Sapulpa
Smith, Norman	Sec.	1-2 Skedee
Smith, Roy E.	Engr., Fr.	1 Pawhuska
Smith, Charles M.	V. M., Soph.	1 Apache
Sneary, Grace	Edu., Fr.	1-2 Carmen
Sneary, Gladys	Bus.	1-2 Carmen
Snell, Irene	Bus.	1-2 Pawhuska
Snider, Beulah	Sec.	1-2 Lindsay
Soderstrom, Mrs. Juanita	Special	1 Stillwater
Soule, Clayton	E. E., Soph.	1-2 Nowata
Soule, Field	Sec.	-2 Gegg
Souter, Netabel	S. and L., Fr.	-2 Magnolia, Arkansas
Southwick, Ivan	C. E., Sr.	1-2 Garber
Spangler, Irl	E. E., Soph.	1 Drumright
Spencer, Mrs. J. R.	H. E., Sr.	1-2 Stillwater
Spencer, Joseph R.	Agron., Sr.	1 Stillwater
Spicer, Verda	Sec.	1-2 Stillwater
Soilman, Robert	P. C. A.	1-2 Lockney, Texas
Spohn, Gladys	Edu., Sr.	SS-1-2 Glencoe
Sjradlin, Noah	Bus.	1 Ardmore
Springer, Ruth	H. E., Fr.	1 Stillwater
Springer, Fern A.	P. C. A.	1 Pawnee
Springer, Glen A.	P. C. A.	1 Pawnee
Springer, Paul A.	P. C. A.	1 Pawnee
Staedelin, Maude	H. E., Soph.	1-2 Medford
Stafford, Vera	Bus.	-2 Pawnee
Stafford, Joe D.	Engr., Fr.	1-2 Pawnee
Stafford, Fred	Agri., Fr.	1-2 Stillwater
Stallings, Ella	Bus.	1-2 Morrilton, Arkansas
Stanfield, Charles C.	Sec.	1-2 Fleetwood
Stanley, Della	Bus.	1-2 Canon City, Colorado
Stark, Leonard	C. and M., Soph.	1-2 Stillwater
Staten, Bertha	Sec.	1-2 Agra
Steele, Milam G.	Sec.	1-2 Whiteagle
Steele, Jeanne	Edu., Fr.	1-2 Whiteagle
Steer, Frank	Engr., Fr.	1 Chandler
Stevens, Carl A.	Engr., Fr.	1-2 Oklahoma City
Steward, Eldridge	Arch., Sr.	1-2 Stillwater
Steward, Eunice	H. E., Soph.	SS-1-2 Anadarko
Steward, Mrs. Una	H. E., Soph.	SS-1-2 Stillwater
Stewart, John	Bus.	1-2 Minco
Stewart, Myrtle Nina	Sec.	1-2 Ripley
Stidham, Dennis	Bus.	1 Taloga
Stine, J. E.	Sec.	1-2 Ochelata
Stinson, Clarence	Agri., Fr.	1-2 Walter
Stockton, Julia	Sec.	1-2 Perkins
Stockton, Leo	Sec.	1-2 Perkins
*Stokes, Brice	Sec.	1-2 Idabel
*Tokesberry, Lawrence	A. H., Jr.	1-2 Stillwater
Stone, Blair	Engr., Fr.	1-2 El Reno
Stone, Mrs. Charles	Special	1 Stillwater
Stone, Shelley R.	E. E., Soph.	1 Chickasha
Story, Lillian	Bus.	1 Pawnee
Stroughn, Hugh	P. C. E.	1 Ripley
Stubblefield, Tula	Bus.	1-2 Pawhusk a
Stubblefield, E. E.	Engr., Fr.	1-2 Pawhusk a
Stubblefield, Norris	P. C. E.	1-2 Manitou
Stull, Albert	P. C. A.	1-2 Pond Creek
Sturgis, Alden	Sec.	1-2 Darlington
Stuteville, Orion	Sec.	1-2 Alfalfa
Sugg, Herbert	Agri., Fr.	1-2 Lone Wolf
Sullivan, Claude S.	Agri., Fr.	1-2 Okmulgee
Swalley, Lucy	H. E., Sr.	1-2 Newkirk
Swan, Frances	Sec.	-2 Ardmore
Sweedon, Oda	Bus.	1 Dewar
Swim, Elmer	Sec.	SS-1-2 Stillwater
Swim, Paul	C. E., Soph.	1-2 Stillwater
Swim, Leslie	C. E., Jr.	1-2 Stillwater

NAME	COURSE	ADDRESS
Taber, Paul	Engr., Fr.	1-2 Stillwater
Taber, Mary	Sec.	1-2 Stillwater
Tantlinger, Helen	Sec.	1-2 Hooker
Taylor, Clarence	S. and L., Fr.	1-2 Stillwater
Taylor, Opal	Edu., Fr.	1-2 Bearden
Taylor, Oscar	Bus.	1 Stillwater
Taylor, Fred B.	Engr., Fr.	1-2 Stillwater
Taylor, Floyd	Bus.	1 Stillwater
Terrill, James	P. C. A.	1 Stillwater
Terwilliger, Aurora	Bus.	1 Stillwater
Tesone, Silver	Engr., Fr.	1-2 Wilburton
Tharp, Merle	Ces.	-2 Yale
Tharp, Thelma	Sec.	SS-1-2 Yale
Thomas, Douglas	C. and M., Fr.	1-2 Ryan
Thomas, Kathryn	Bus.	1-2 Kelleyville
Thomas, Josephine	Special	1-2 Pampa, Texas
Thomas, Elbert	C. and M., Soph.	1 Pampa, Texas
Thomas, Ada	Bus.	1-2 Kelleyville
Thomas, Chester C.	P. C. A.	1-2 Tonkawa
Thomas, Harley O.	Agron., Jr.	1 Yates City, Illinois
Thomas, Pearl	Bus.	-2 Kelleyville
Thomas, Joseph	Sec.	1-2 Tupalo
Thompson, Norma	H. E., Fr.	1-2 Oklahoma City
Thompson, Ferral	Bus.	SS-2 Stillwater
Thompson, Card	Sec.	SS-2 Pawnee
Thompson, Cecil	Sec.	1-2 Shamrock
Thornton, Charlotte S.	Bus.	1-2 Stillwater
Thornberry, William	P. C. E.	1-2 Wichita Falls, Texas
Thorp, Oakley G.	Engr., Fr.	1-2 Broken Bow
Tiger, DeWitt	Sec.	1 Okmulgee
Tiller, Elmer	P. C. A.	1-2 Jones
Tilton, Richard T.	Agri., Soph.	1-2 Nardin
Tiner, Floyd C.	Bus.	1 Ripley
Todd, Claude	Sec.	-2 Tulia, Texas
Todd, Clarence	Sec.	-2 Tulia, Texas
Tolleson, Mary	Sec.	1 Stillwater
Towner, Irene	Bus.	1-2 Skedee
Trekell, Lester	Agri., Fr.	1-2 Hunter
Trekell, Edna	H. E., Sr.	SS-1-2 Hunter
Trekell, Bessie	Sec.	1-2 Hunter
Trimble, Naoi	Sec.	1-2 Dawson
Tripp, Leonard	P. C. A.	1-2 Blackwell
Tripp, Thomas A.	Sec.	1-2 Afton
Trotter, Frank A.	Engr., Fr.	1-2 Sapulpa
Tucker, Marion	Sec.	-2 Stillwater
Turk, Irving	Agri., Fr.	1 Oklahoma City
Turner, Mildred	Edu., Fr.	1-2 Pawnee
Turner, Johnnie	Sec.	1-2 Sayre
Turner, Veo	Sec.	1-2 Sayre
Tyler, Mary	Sec.	1 Mehan
Tyler, Dola	Sec.	1-2 Mehan
Tyner, Roy F.	Sec.	1-2 Skiatook
Tyner, Hazel	Bus.	1-2 Goltry
Tyner, Bessie	Sec.	1-2 Goltry
Tyrrell, George	Sec.	SS-1 Wilburton
Upp, Charles	Agri., Fr.	1-2 Chelsca
Upton, Charles	P. C. E.	1 Mounds
Utter, Mollie	Sc.	SS-1-2 Perkins
Van Bebber, Roy	P. C. A.	1-2 Perry
Vance, Carmen	Engr., Fr.	1-2 Yates City, Illinois
Vanderwork, Darwin	P. C. E.	1-2 Waukomis
Van Meter, Grace	Sec.	1-2 Sulphur
Varnum, Emerson	C. and M., Soph.	1-2 Shawnee
Vermillion, Carrie	Sec.	SS-1-2 Stillwater
Vermillion, Ruth	H. E., Sr.	1-2 Stillwater
Vermillion, Evelyn	Sec.	1-2 Stillwater
Vickery, C. C.	Bus.	1 Arkoe, Missouri
Vincent, Clausine	Sec.	1-2 Stillwater
Vincent, Glen G.	S. and L., Fr.	1-2 Ada
Vincent, Mrs. Viola	Bus.	1-2 Stillwater
Vincent, Robert	Sec.	1-2 Stillwater
Vitek, Albina	Bus.	SS-1 Stillwater
Vogel, Nira	H. E., Fr.	1-2 Shawnee
Voyles, Carl	C. and M., Fr.	1-2 Drumright

REGISTER OF STUDENTS

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NAME	COURSE	ADDRESS
Volyes, Clifford	Bus. 1	Drumright
Wade, Albert Earle	A. H., Sr. SS-1	Douglas
Wainscott, Lewis B.	Sec. 1-2	Higgins, Texas
Walcott, Cline	C. E., Soph. 1-2	Olustee
Waldrop, Glen	P. C. A. 1-2	Manitou
Walker, Edith	Sec. 1-2	Fleetwood
Walker, James A.	Sec. 1-2	Fleetwood
Walker, Morgan	Engr., Fr. 1-2	Fleetwood
Walker, Irene	Special 1	Helena
Walker, Fayette R.	Sec. 1	Hobart
Wallace, John	Sec. 1-2	Oklahoma City
Wallen, Alta F.	Bus. 1-2	Bernice
Wallingford, Charles A.	Bus. 1	Stillwater
Walsh, Claude L.	Sec. 1-2	Los Angeles, California
Wantland, Earl	Sec. 1-2	Eureka, Kansas
Warc, Jim	Bus. 1-2	Stillwater
Ware, Tim	Bus. 1-2	Stillwater
Watkins, Leona	Special 1-2	Helena
Watkins, Clarence	Sec. 1	Helena
Watson, Beatrice	Sec. 1-2	Mutual
Watson, Elbertine	Sec. 1	Mutual
Weathers, Nancy L.	Bus. 1-2	Stillwater
Weathers, Charles	Bus. 1	Stillwater
Weaver, Walter	C. and M., Fr. SS-1-2	Stillwater
Weaver, Manford	Sec. 1-2	Custer City
Webb, R. T.	E. E., Sr. 1-2	Stillwater
Webb, Nix	M. E., Sr. 1-2	Tipton
Webb, Rilla	Sec. 1-2	Fleetwood
Weiss, Mary	H. E., Fr. SS-1-2	Harrah
Wells, Homer	Bus. 1-2	Goltry
Wells, Fred	Special 1-2	Broken Arrow
Wertz, Leo	C. and M., Soph. 1-2	Purcell
West, Bernice	Bus. -2	Stillwater
Westfall, Augusta	Sec. 1-2	Okeene
Wheeler, Mabelle	H. E., Fr. 1-2	Blackwell
Wheeler, Pearl	H. E., Sr. SS-1-2	Stillwater
Wheeler, Blanche	Sec. 1-2	Stillwater
Whillock, Clyde	Edu., Fr. 1-2	Stillwater
Whistler, Jessie	Edu., Fr. 1-2	Boynton
Whitaker, Florence	Sec. 1-2	Stillwater
Whitaker, Helen	Sec. 1-2	Stillwater
White, Bob	Hort., Jr. 1-2	Vinita
White, Aimee	Sec. 1-2	Vinita
White, Milford	Sec. 1	Vinita
White, Grace	Bus. 1	Stillwater
Whitehurst, Howard	Bus. 1-2	Doxey
Whitford, Mrs. Helen	Edu., Sr. 1-2	Stillwater
Whitford, Thomas	Engr., Fr. 1	Stillwater
Whitney, Frank	Special 1-2	Albany, Texas
Whyte, Paulyte	C. and M., Fr. 1-2	Okemah
Wilber, Philip	Arch., Jr. 1	Guhtrie
Wilber, Herbert	C. and M., Fr. 1-2	Guhtrie
Wileman, Zaida	Bus. 1-2	Stillwater
Wiley, Ross	Agri., Fr. 1-2	Stillwater
Williams, Daive	Agri., Fr. -2	Purcell
Williams, Jennie	Bus. 1-2	Mehan
Williams, Armon	Engr., Soph. 1-2	Marshall
Williams, Edith	Sec. 1-2	Mulhall
Williams, Julian	Agri., Soph. 1	Tishomingo
Williams, Florence	Sec. SS-1-2	Stillwater
Williams, Anna M.	Bus. 1	Ryan
Wills, Carl J.	P. C. A. 1-2	Ralston
Wilson, William P.	Agri., Fr. 1-2	Leonard, Texas
Wilson, Hester	H. E., Sr. 1-2	Hydro
Wilson, Lillian E.	S. and L., Sr. SS-1-2	Stillwater
Wilson, Grace	H. E., Soph. 1-2	Stillwater
Wilson, Wilbur	P. C. A. 1-2	Homestead
Wilson, Hubert	P. C. A. 1-2	Homestead
Wilson, William A.	C. and M., Fr. SS-1	Yellville, Arkansas
Winkelman, Magdalen	Edu., Sr. 1-2	Chandler
Winsett, Donald	Sec. 1-2	Higgins, Texas
Witcher, Otis	Bus. 1-2	Holdenville
Withers, Addie	H. E., Fr. SS-1-2	Stillwater
Witte, Harold	E. E., Sr. 1-2	Cushing
Wohlbrandt, Philip	Engr., Fr. 1-2	Custer City

NAME	COURSE	ADDRESS
Wolff, J. Powers	Edu., Soph.....	1-2 Waukomis
Womack, Henry W.	P. C. A.....	1 Byars
Wood, Harold	P. C. E.....	1 Calico Rock, Arkansas
Wood, Paul H.	Engr., Fr.....	1-2 Iahoma
Woodhead, Lucy E.	Unclassified	1-2 Stillwater
Woodruff, Wayne	E. E., Sr.....	1-2 Blackwell
Woods, Roy	Sec.	1 Randlett
Woodul, Mabel	Sec.	1 Newkirk
Word, E. Walter	Fr.	1-2 Higgins, Texas
Word, Charles V.	Sec.	1 Arnett
Worrell, Otto	Vocational	1-2 Pond Creek
Wortman, Leo S.	Agri., Sr.....	1-2 Stillwater
Wright, Eva	H. E., Soph.....	SS-1-2 Stillwater
Wright, Harry A.	Sec.	1 Perty
Wright, L. L.	Bus.	SS-1 Stillwater
Yeargin, Grace	Sec.	SS-1-2 Stillwater
Young, Rosa	H. E., Fr.....	1-2 Mills
Young, J. Clinton	S. and L., Fr.....	1-2 Hydro
Young, Iona	C. and M., Fr.....	1-2 Stillwater
Young, Trissie	Edu., Jr.....	1-2 Stillwater
Young, John G.	Sec.	1-2 Stillwater
Young, Eugene	Engr., Soph.....	1 Aransas, Texas
Zears, Charles	Agri., Fr.....	1 Sandoval, Illinois

Summer Session Students

Ahrens, B. A., Stillwater	Atkinson, Irene, Stillwater
Allnut, Alvin, Stillwater	Aurell, Lucille, Lawton
Amundson, Rosella, Stillwater	Auston, James, Muskogee
Badger, Frances, Pawnee	Blackburn, Joe T., Belle View, N. M.
Bagby, Helen, Pawnee	Bonham, Pearl, Cordell
Baker, Myrtle, Cushing	Bowers, Coneland, Stillwater
Ball, Bessie, Pawnee	Bradford, Florence, Cushing
Barde, N. W., Guthrie	Braswell, P. H., Glencoe
Barrey, J. D., Stillwater	Brenninger, Esther, Orlando
Barthel, Hattie, Ralston	Briggs, Nellie, Stillwater
Bartlette, Alice, Stillwater	Brock, Charlena, Stillwater
Bates, Gladys, Pawnee	Brown, Opal, Sand Springs
Beaver, Gertrude, Stillwater	Brown, Clara, Cushing
Bell, Burton, Herlton	Brown, Mabel, Cushing
Bertam, Eli, Stillwater	Bunyard, Claude, Stillwater
Bird, Gertrude, Ryn	Burke, Clara, Stillwater
Black, Lillian, Pawhuska	
Caldwell, Nita, Stillwater	Chism, Cora Lee, Tulsa
Caldwell, Raymond, Stillwater	Clingenpeel, Olive, Stillwater
Caldwell, Mrs. Raymond, Stillwater	Clingenpeel, Lillie, Stillwater
Campbell, Anna, Morrison	Cochran, Alma, Chickasha
Carady, Everett, Stillwater	Coren, W. A., Frederick
Cartrell, Eula, Ripley	Collins, Mabel, Stillwater
Cartwell, Christine, Stillwater	Corbin, D. C., Yukon
Carlena, Mamie, Stillwater	Cox, Asa, Stillwater
Catlin, Clara C., Stillwater	Crays, Mrs. Gussie, Stillwater
Cavett, Pearl, Eagle City	Cummings, Maxie, Goodwell
Cermak, Lizzie, Red Rock	
Darby, Gladys, Pawnee	DeBord, Grace, Stillwater
Darlow, Anna, Stillwater	Dietz, Edna, Maryville, Missouri
Daughter, Leta, Davenport	Dollinger, Ila, Stillwater
Davidson, Nellie, Stillwater	Douglas, Blanche, Yale
Davis, Delbert, Merrick	Douglas, Mazel, Yale
Dawson, Kathleen, Chickasha	Drake, Marie, Tryon
DeBord, Florence, Stillwater	Dunlavy, Henry E., Stillwater
Edmiaston, Alvin, Hollis	Emmons, Ruth, Tryon
Ellis, Lois, Stillwater	Emmons, Clara, Stillwater
Ellis, Ruth, Stillwater	Etter, Avah, Anadarko
Fair, Rinaldo M., Valiant	Forrester, W. B., Startford
Files, Agnes, Ralston	Forsyth, Fred, Bushyhead
Fisher, Mrs. Nellie, Stillwater	Foster, Ivan, Stillwater
Fisher, Mary, Stillwater	Foster, Anna, Stillwater
Fisher, Irene, Stillwater	Frazier, L. F., Stillwater
Ford, Lola, Headrick	French, Laura, Stillwater

George, Ethel, Dexter, Kansas
 Gibson, Bryan, Elmore City
 Goforth, Lula, Vinita
 Goforth, Lillian, Vinita

Hall, Gertrude, Stillwater
 Hamby, Renic, Kosoma
 Hawkins, I. L., Stillwater
 Harlow, Harrell, Cleveland
 Harp, Juna Marie, Stillwater
 Harris, Motier, Bismark, Missouri
 Harris, Elsie, Cushing
 Harris, Goldie, Cushing
 Hayes, P. H., Stillwater
 Hayman, Etta, Stillwater

Ives, Herbert, Avery

Jack, Mrs. Rex, Stillwater
 Jedlicka, Amelia, McAlester
 Jester, Louise, Stillwater

Keller, Lavone, Marshall
 Kerntke, Frances, Stillwater
 Kessinger, Bessie, Hobart
 Kilburn, Lucille, Sand Springs
 Kile, Eugene, Oklahoma City

Lamb, Jenette, Cleveland
 Leach, Florence, Stillwater
 Lingenfelter, Emma, Perkins

McAnally, Ora, Coyle
 McBride, Elmer, San Marcos, Texas
 McDonald, Doris, Stillwater
 McKenzie, Frances, Stillwater

Mahaffey, Nellie B., Devol
 Mantle, Iva, Adair
 Markwell, Ethel, Stillwater
 Marshall, Nary Opal, Tulsa
 Mathews, Richard, Stillwater
 Maxwell, J. B., Keystone
 Mays, V. B., Ryan
 Meads, Margaret, Shawnee
 Miller, Iva, Stillwater
 Miller, Ruth, Perkins
 Montgomery, Bertie, Castle

Naly, Edna, Cleveland
 Nauman, Marie, Cushing
 Nelson, Okey, Stillwater
 Nelson, Spurgeon, Stillwater

Oldham, Rhodella, Stillwater
 Oursler, Anna L., Stillwater

Palk, Annetta, Hollis
 Parker, Grace, Glencoe
 Patterson, Jennie, Blackwell

Raffety, Olive, Yale
 Raider, Sarah, Stillwater
 Ramsey, Genevieve, Cushing
 Ray, Louise, Stillwater
 Reorick, Bonnie, Hinton
 Rhodabarger, Helen, Cleveland
 Rice, Alice, Stillwater
 Rich, H. E., Buffalo
 Richardson, Florence, Stillwater

Saint, Alice, Perkins
 Schooler, Bessie, Stillwater
 Schooler, Rachel, Stillwater
 Scott, Wiley, Carnegie
 Selby, Jessie, Stroud
 Shallhammer, Edna, Coyle
 Sheets, Winnie, Osawatomie, Kansas

Goodan, Thelma, Stillwater
 Goss, Bessie, Cushing
 Gray, Grace, Yale

Hedges, Myrtle, Meramec
 Henson, Grace, Stillwater
 Hesser, Mildred, Glencoe
 Hesser, Edith, Glencoe
 Holeman, Jennie, Olive
 Hoover, Mrs. L. B., Hallett
 Herschler, Elizabeth, Cordell
 Hulet, Arlie Fern, Maryville, Missouri
 Huntington, Hazel, El Reno

Johnson, Ruth, Glencoe
 Jones, Vera, Stillwater
 Jones, Mrs. A. V., Yale

Kirkpatrick, Katie, Stillwater
 Knight, Lillian, Stillwater
 Knight, Myrtle, Stillwater
 Kooglar, Iva, Stillwater

Livesay, Nellie, Pawnee
 Long, Louella, Stillwater

McLoury, Lorene, Cushing
 McMillion, Verna, Stillwater
 McPheeters, T. R., Porum

Moore, Carrie, Collinsville
 Moore, Marie, Dewey
 Moore, Winnifred, Stillwater
 Morgan, Modine, Stillwater
 Morris, Florence, Meno
 Morris, Mable, Meno
 Moser, Anna, Yale
 Mosley, Frances, Stillwater
 Mullen, Doris, Yale
 Muncie, Blanche, Stillwater

Newman, Lilla, Magazine, Arkansas
 Newman, Hattie, Avery
 Newman, Beulah, Lawton

Oursler, Elizabeth, Stillwater

Patterson, Florence, Cushing
 Patton, Pearl, Stillwater
 Pollard, Joe, Stillwater

Richardson, Blanche, Stillwater
 Roberts, Minnie, Stillwater
 Robertson, R. B., Stillwater
 Robinson, Geo. L., Stillwater
 Rogers, Murrel, Copan
 Rotroff, Loto, Glencoe
 Rowe, Clyde, Amber
 Russell, Mollie, Adair

Sherriff, Gladys, Louis
 Shertzer, Boyd N., Dewey
 Shepard, Ruth, Stillwater
 Sloan, Susie, Cleveland
 Slover, Mrs. Lizzie, Cushing
 Smith, Pearl, Stillwater
 Spilman, Ellen, Glencoe

Stark, Hazel, Stillwater
 Stevens, Margaret, Stillwater
 Stine, Edna, Brinkman
 Stout, Susie, Cleveland
 Stratton, S. J., Pawnee

Taulbee, Raymond, Maramec
 Thomas, Fannie, Stillwater
 Thompson, Stella, Ralston
 Tippie, George, Pryor
 Tolleson, J. W., Stillwater

Upp, Blanche, Cushing
 Vaughn, Gertrude, Pawnee

Walker, Rosetta, Stillwater
 Ware, Alta, Stillwater
 Warren, Lula, Eagle City
 Watson, Joethel, McAlester
 Wedel, A. J.
 Well, Mrs. Dean, Stillwater
 Wheeler, Florence, Pawnee
 Whillock, B., Stillwater
 Whipple, John W., Stillwater

Yeargin, Gladys, Stillwater

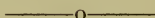
Stratton, Hazel, Pawnee
 Studebaker, Rosa, Stillwater
 Sullivan, Onie, Elk City
 Surtees, L. V., Stillwater

Tolleson, Grace, Headrick
 Tourtellotte, Evart, Stillwater
 Tucker, Pansy, Glencoe
 Turner, Mamie, Scottsville, Kentucky

Vesper, Elizabeth. Mazie

White, Loraine, Drumright
 Whitham, Blanche, Stillwater
 Wilke, Anna, Alva
 Wilson, Maude, Wichita, Kansas
 Wimmer, Alice, Stillwater
 Wise, Oscar, Stillwater
 Wood, Beulah, Stillwater
 Wyatt, Ethel, Orlando

Young, Verle, Stillwater



SUMMARY OF STUDENTS BY CLASSES

Session 1917-18

Graduate students	7
Senior class	77
Junior class	61
Sophomore class	86
Freshman class	277
Secondary School	379
Specials	40
Business course	198
Unclassified	11
Vocational students	8
Short Course in Practical Agriculture	87
Short Course in Practical Engineering	32
Summer School, 1917	395
Total	1,658
Special School for Boys and Girls at Oklahoma State Fair	147
	1,805
Duplicates	147
Total	1,658

THE ALUMNI

CLARENCE ROBERTS, '15, *President*, Oklahoma City, Oklahoma
 DALE BARNES, '14, *First Vice President*, Banner, Oklahoma
 ORVILLE SAVAGE, '16, *Second Vice President*, Muskogee, Oklahoma
 MATHILDE MCLELLAND, '14, *Third Vice President*, Boston, Massachusetts
 FEARN HAMILTON, '13, *Secretary*, Stillwater, Oklahoma
 C. E. HOKE, '07, *Treasurer*, Stillwater, Oklahoma

The following is a list of the graduates of the College. In case of change of address, it is especially desired that graduates advise the Registrar of same. The courses from which alumni have received their degrees are indicated as follows:

- I. Agriculture
- II. Engineering
- III. General Science
- IV. Domestic Science and Art
- V. Science and Literature
- VI. Teachers Normal Training
- VII. Commerce and Marketing.

Abercrombie, Lieutenant Russell T., I, 1916	Military Service
Abercrombie, Leona, IV, 1917, Dietitian Wesley Hospital	Oklahoma City, Oklahoma
Abernathy, Eunice, VI, 1916, Teacher	Hollis, Oklahoma
Abernathy, Ora, IV, 1915, at home	Hollis, Oklahoma
Abernathy, Oscar, V, 1915, 8th Field Hospital	Camp Bowie, Texas
Acheson, Margaret, VI, 1912, Christian Science Practitioner	Jacksonville, Florida
Adams, A. W., I, 1896, Real Estate Agent	Ardmore, Oklahoma
Adams, J. H., I, 1896, Real Estate Agent	Ardmore, Oklahoma
(Adams) Weaver, Kathryn, IV, 1916, at home	Little Rock, Arkansas
(Adams) Short, Myrtle, IV, 1913, at home	Little Rock, Arkansas
(Aikins) McKeeman, Evelyn, IV, 1911, at home	Medford, Oklahoma
Akagi, Yutaga, I, 1912	Tokio, Japan
Albert, Harold R., V, 1913, Superintendent of Schools	Heavener, Oklahoma
Allen, H. S., II, 1910, C. E., 3533 Tracy avenue	Kansas City, Missouri
Anderson, Albert A., II, 1916, Draftsman	Shelby, Ohio
Anderson, A. B., II, 1902, A., T. and S. F. Ry.	Canadian, Texas
Anderson, A. W., III, 1900, Lawyer	Woodward, Oklahoma
Anderson, P. K., II, 1915, Headquarters Co., 17th Ry. Engrs.	U. S. E. F., France
Anderson, R. E., V, 1908, Attorney	San Diego, California
Anderson, Lieutenant Roy L., I, 1917	Military Service
Andrew, Carl S., I, 1916, Co. D, 343d M. G.	Camp Travis, Texas
Andrews, Maud, IV, 1915, Teacher	Idabel, Oklahoma
Andrews, Myron, I, 1916, Agriculturist, Station A	Ames, Iowa
Arabajian, H. K., I, 1915, Arakelian Bros. Fruit Co., Box 447	Fresno, California
Atkinson, Mary, III, 1906, Stenographer, Experiment Station	Stillwater, Oklahoma
Baade, H. J., V, 1910, Teacher	Presidio, California
Baird, R. O., III, 1908, M. S., 1913, Professor of Chemistry, Agricultural College	Fargo, North Dakota
Baker, De La Rue, V, 1914, County Agent	Tulsa, Oklahoma
Ball, H. L., II, 1905, Salesman, Western Electric and Mfg. Co.	Rochester, N. Y.
Bandel, Maude, IV, 1915, Teaching D. S. in High School	Ramona, Oklahoma
Barnes, H. D., I, 1914, Farmer	Banner, Oklahoma
Bartlett, Alice, VI, 1917, Teacher	Deer Creek, Oklahoma
Bartlett, E. E., V, 1912, Chemist, Glass Factory	Sapulpa, Oklahoma
Bartlett, E. C., I, 1912, Pine Grove Ranch	Rye, Colorado

(Bass) Nelson, Lillian, VI, 1915, at home	Houston, Texas
Bauman, Chas., V, 1916, Farmer	Bessie, Oklahoma
(Bellis) Means, Ida, V, 1914, at home	McLoud, Oklahoma
Beck, Lieutenant Paul V., V, 1916	Military Service
Bennett, Paul, II, 1908	Stillwater, Oklahoma
Bentley, M. R., II, 1909, County Agent	Taloga, Oklahoma
Biggin, Dorothea, VI, 1916, 1116 N. 28th street	Birmingham, Alabama
Biyey, R. I., V, 1905, Teacher, Connors State School of Agriculture	Warner, Oklahoma
Black, Lieutenant James, I, 1917, 34th Infantry	Fort Bliss, Texas
Blackwell, C. P., V, 1911, Instructor in University of Texas	Austin, Texas
Bloom, C. B., II, 1913, Science and Research, Aviation Division	Waco, Texas
Blue, True C., II, 1909, Bagnell & Hillis Co.	Yokohama, Japan
Blue, F. R., II, 1905, Farmer	Cushing, Oklahoma
Boley, A. L., II, 1908, Chief Electrician, Navy Yard	Washington, D. C.
Bonar, H. T., II, 1913, Westinghouse Electric and Mfg. Co.	St. Louis, Missouri
Bonar, Mollie, VI, 1916, Teacher	Hartshorne, Oklahoma
Booth, V. J., I, 1917, Caddo-Mebane Cottonseed Co.	Caddo, Oklahoma
Boutin, H. C., II, 1909, Automobile Salesman	Pawhuska, Oklahoma
Bowers, G. W., III, 1897, Railway Conductor	Enid, Oklahoma
Bowers, Chas., I, 1913, Teacher in Parish Agricultural School	Goldonna, Louisiana
Bowers, R. D., III, 1904, Lawyer	Roswell, New Mexico
(Boyd) Muncie, Nina, VI, 1915, at home	Stillwater, Oklahoma
Boyd, Lieutenant O. C., I, 1916, 357th Infantry	Camp Travis, Texas
Boydston, Ethel, IV, 1915, Teacher Southern Methodist University	Dallas, Texas
(Braden) Robertson, Gertrude, III, 1906, at home	Sapulpa, Oklahoma
(Bradwell) Newby, Olive, V, 1909, at home	Mulhall, Oklahoma
(Brandon) Lewis, Edna, IV, 1915, at home	Stillwater, Oklahoma
Brannin, Louis, I, 1914, Stockman, 5011 Junius street	Dallas, Texas
(Bras) Owens, Ruth, III, 1907, at home	Okechobee, Florida
(Bredenthal) Coppedge, Hazel, VI, 1915, at home	Wellsford, Kansas
Breuer, E. H., II, 1911, Treasurer of El Reno Foundry and Machinshop	El Reno, Oklahoma
(Brian) DeMerritt, Naomi, IV, 1915, at home	Cushing, Oklahoma
Bridges, J. W., VI, 1916, M. S., Dept. of Education, Oklahoma University	Norman, Oklahoma
Briscoe, Jack, II, 1917, Goodyear Rubber Co.	Akron, Ohio
Briggs, Glen, I, 1915, U. S. Expt. Station	Island of Guam
Brisby, Cassie K., IV, 1915, Teacher	Enid, Oklahoma
Brodell, Arthur C., VI, 1913, Superintendent of Schools	Ralston, Oklahoma
Brodell, A. P., I, 1917, Land Classification Board, U. S. Geol. Survey	Washington, D. C.
Broemel, Agnes, VI, 1915, Student in Art Institute	Chicago, Illinois
(Brooks) Schreiber, Hazel, V, 1914, at home	Harrison, Virginia
Broom, Rose E., V, 1906, Primary Teacher	Howe, Oklahoma
Brower, Laura, IV, 1916, Teacher Home Economics	Cleveland, Oklahoma
Brown, Chas. W., III, 1906, Research Assistant in Bacteriology, Michigan Agricultural College	East Lansing, Michigan
Brown, C. B., I, 1913, Assistant Dry Land Farming, U. S. Geol. Survey	Garden City, Kansas
Brown, Mary, VI, 1917, Rural Teacher	Cushing, Oklahoma
Brown, J. J., II, 1903, General Electric Co.	Manila, Philippine Islands
Brown, Oliver C., II, 1914, General Electric Co.	Schenectady, N. Y.
Browning, J. M., I, 1915, Manager of Farm	Paragould, Arkansas
Brumbaugh, Norma, IV, 1917, Home Economics Teacher	Kiefer, Oklahoma
Bryant, M. Ray, I, 1917, War Emergency Agent, Extension Division, A. and M. College	Stillwater, Oklahoma
Buchanan, W. A., I, 1912, County Agricultural Agent	Marshalltown, Iowa
Buddruss, Lieutenant Edward, I, 1917, 1st Co., 1st Tr. Bu.	Camp Pike, Arkansas
Buffington, Betha, IV, 1912, Teacher	Stillwater, Oklahoma
Bullen, B. C., III, 1912, Doctor, 518 W. 143d street	New York City, N. Y.
Bullen, C. K., II, 1909, Civil Engineer, Cosden Oil and Gas Co.	Bristow, Oklahoma
Bullock, Noah P., III, 1899, Mail Carrier	Pauls Valley, Oklahoma
Burke, Elizabeth, IV, 1913, Stenographer, President's office, A. and M. College	Stillwater, Oklahoma
Burke, M. P., II, 1909, Science and Research Division	Waco, Texas
Burke, Lieutenant W. J., II, 1911, C. A. C., 8th Co.	Fort Stevens, Oregon
Burleson, Wm. L., I, 1905, Associate Professor of Agronomy, University of Illinois	Urbana, Illinois
*Burnett, Roy E., III, 1905	
Butter, Lieutenant Joe, II, 1915	Military Service
Caldwell, Lieutenant Virgil E., V, 1917, 5th Infantry, Canal Zone	Empire, Panama
Camp, W. E., II, 1910, Sales Manager, General Electric Co.	Sacramento, California
Campbell, Lieutenant Jefferson, VII, 1917, 11th Field Artillery, Camp Doniphan	Fort Sill, Oklahoma
Campbell, Milton, I, 1914, Stock Farm	Verden, Oklahoma

*Deceased.

Campbell, Rhea, VI, 1915, Assistant Bacteriologist, State Health Department.....	Guthrie, Oklahoma
(Campbell) Santee, Viola, IV, 1913, at home	Muskogee, Oklahoma
Canfield, Jesse L., V, 1916, Chemist	Yale, Oklahoma
Carlson, Grace, IV, 1917, Teacher	Cherokee, Oklahoma
Carlyle, Kathleen, IV, 1917, Student, Sargent School of Physical Culture	Boston, Massachusetts
Carney, Zora M., IV, 1914, at home	Rushville, Indiana
Carpenter, Chas. L., I, 1916, Teacher of Agriculture	Bridgeport, Oklahoma
Carson, Susie S., III, 1912, Hardware Business	Perkins, Oklahoma
Carson, Ross L., III, 1907, Hardware Business	Perkins, Oklahoma
Carter, W. C., II, 1911, Westinghouse Electric and Mfg. Co., Dime Savings Bank Bldg.	Detroit, Michigan
Carter, E. O., II, 1916, Pioneer Telephone Co.	Oklahoma City, Oklahoma
(Casali) Peck, Louise, IV, 1911, at home	Stillwater, Oklahoma
Cass, Early, I, 1915, Fourth Officers Training Camp	Little Rock, Arkansas
(Caton) Youngie, Orpha, V, 1909, Teaching	Henryetta, Oklahoma
Caudell, A. N., III, 1897, Bureau of Entomology, U. S. Dept. of Agriculture	Washington, D. C.
Chandler, Emma, IV, 1906, Assistant State Agent, Extension Division, A. and M. College	Stillwater, Oklahoma
Chandler, F. F., II, 1904, Assistant to Superintendent of Foundries, Bethlehem Steel Co.	South Bethlehem, Pennsylvania
(Chester) Goodwin, Bertha, III, 1907, at home	Nevada, Missouri
Chewning, W. P., I, 1917, Assistant in College Dairying, A. and M. College	Stillwater, Oklahoma
(Chivington) Tyson, Anna, IV, 1911, at home	Tulsa, Oklahoma
Choate, George R., I, 1915	Military Service
Clark, Arthur C., II, 1906, Mail Service	Claremore, Oklahoma
Clark, F. J., III, 1908, Office Manager, Book Dept., Webb Publishing Co.	St. Paul, Minnesota
Clark, C. L., V, 1914, Vice President, Hillman Oil and Gas Co.	Cushing, Oklahoma
Clark, J. T., III, 1898, Farmer	Puerto Princesa, Palawan, Philippine Islands
Clausen, Elsie M., VI, 1916, Teacher	Thomas, Oklahoma
Clausen, Nellie C., IV, 1914, Teacher Domestic Science	Caddo, Oklahoma
Clausen, Mrs. B. J., VI, 1912, Care Rush Medical School	Chicago, Illinois
Clausen, R. E., I, 1910	Military Service
Clausen, Lieutenant, B. O., II, 1912	Military Service
Clemmer, H. J., I, 1915, U. S. Dept. of Agriculture	Woodward, Oklahoma
Cloukey, H. U., III, 1909, Chemist, Forest Products Laboratory, U. S. Dept. of Agriculture	Madison, Wisconsin
Cobb, Lieutenant A. L., II, 1913	Military Service
(Cobb) Payne, Mary, IV, 1913, at home	Amherst, Massachusetts
Coburn, Carroll, II, 1912	Military Service
Cole, Frank, III, 1904, Solution Foreman, Anaconda Copper Mining Co.	Anaconda, Montana
Cole, Pearl, VI, 1917, Teacher	Shamrock, Oklahoma
Comstock, Harry, II, 1905, Witherbee, Srehman & Co.	Mineville, New York
Comstock, Frank, II, 1912, Electrician	Yuma, Colorado
Conn, Julian, II, 1915, Evaluation Engineer, U. S. Dept.	Kansas City, Missouri
Connell, W. B., V, 1912, Connell Automobile Distributing Co., 2034 Commerce street	Dallas, Texas
Conner, W. A., I, 1917, District Agent, Extension Division, A. and M. College	Stillwater, Oklahoma
Conklin, Henry E., II, 1914, Salesman, Westinghouse Electric and Mfg. Co.	Detroit, Michigan
Cook, H. P., II, 1912, Science and Research, Aviation, Camp McArthur	Waco, Texas
Cooley, D. F., VI, 1916, High School Principal	Drumright, Oklahoma
Corbin, Bert O., II, 1916	Military Service
Correll, V. I., V, 1912, Fourth Training Camp	Camp Pike, Arkansas
*(Cox) Fisher, Mary E., IV, 1913	Dickens, Texas
Crawford, George L., I, 1915, County Agent	Dickens, Texas
Crawford, C. W., III, 1909, Food and Drug Inspector, U. S. Customhouse	New Orleans, Louisiana
Crocker, Fred, V, Tennessee Coal, Coke and Iron Mfg. Co.	Birmingham, Alabama
(Cummings) Hamilton, Maxie, VI, 1916, at home	Tulsa, Oklahoma
Cunningham, Katherine, VI, 1917	Address Unknown
Dale, E. B., II, 1914, M., K. and T. Ry Co.	Smithville, Texas
Davis, George E., II, 1916, Ground Aviation School, Cornell University	New York
Davis, R. N., I, 1911, Manager, Salmon Cannery Co.	Salmon, Idaho
DeBord, George G., V, 1914, Bacteriologist, U. S. Dept. of Agriculture	Washington, D. C.
Denton, Elizabeth, IV, 1916, Teacher Domestic Science	Skiatook, Oklahoma
Denton, Esther, IV, 1917, Teacher Home Economics	Newkirk, Oklahoma
Dolde, W. E., II, 1912, Teacher Manual Training	Phoenix, Arizona
(Dillon) Moorhouse, Lucile, V, 1917, at home	Stillwater, Oklahoma

*Deceased.

Dickson, G. K., V, 1917, Bacteriologist, State Health Dept.	Oklahoma City, Oklahoma
(Donart) Coffey, Cora M., III, 1900, at home	Lawton, Oklahoma
Donart, C. R., III, 1899, County Agent	Oklahoma City, Oklahoma
(Donart) Wilcoxon, Gladys K., IV, 1914, at home	Drumright, Oklahoma
*Dorman, W. S., II, 1911	
Doty, Lieutenant Harold, I, 1915, 1st Co., 90th Divis. Training Camp	Camp Travis, Texas
Dougan, E. E., II, 1907, General Electric Co.	Pittsfield, Massachusetts
Douglas, Marion, VI, 1917, Principal of High School	Yale, Oklahoma
Drake, T. J., V, 1913, Real Estate Business	Fort Lauderdale, Florida
Drummond, Lieutenant A. A., I, 1915, 1st Oklahoma Cavalry	Camp Bowie, Texas
Drummond, F. G., V, 1914	Military Service
Duck, T. W., II, 1912, Iron Mountain Ry. Co.	Little Rock, Arkansas
Duck, F. E., I, 1896, Farmer	Stillwater, Oklahoma
Durham, S. B., I, 1904, Dairy Husbandry, Bureau of Animal Industry	Denison, Texas
(Dysart) Teter, Minnie, III, 1899, at home	Bristow, Oklahoma
Eads, Velma, IV, 1913, Teacher Home Economics	Checotah, Oklahoma
Eberle, Dovie, III, 1906, Dietitian in Hospital	Los Angeles, California
Edson, E. O., I, 1915, Agriculturist, Hospital for Insane	Jackson, Louisiana
Elston, W. B., II, 1915	Military Service
Emmons, Mrs. Clara, VI, 1917, County Demonstration Agent	Guthrie, Oklahoma
(English) Lantz, Maude M., III, 1907, at home	Orland, California
English, Wm. L., I, 1905, Supervisor of Agriculture for Frisco Lines	St. Louis, Missouri
Evans, A. Ray, I, 1912, Bureau of Markets, U. S. Dept. of Agriculture	Washington, D. C.
Evans, Ruth, IV, 1917, Teacher	Prague, Oklahoma
Epperson, Jesse H., V, 1914, City Bacteriologist	Durham, North Carolina
Fair, Rinaldo M., IV, 1917, Superintendent of Schools	Jenks, Oklahoma
Fansher, Lieutenant Ted, I, 1913, 87th Division Training Camp	Fort Logan H. Roots, Arkansas
Fansher, R. A., I, 1912, Stock Farmer	Edmond, Oklahoma
Faulds, N. M., II, 1910, Truck Farmer	Wachula, Florida
Fellows, Iris, V, 1917, Graduate Student, A. and M. College	Stillwater, Oklahoma
Fellows, Lieutenant, Keith, II, 1915, Co. F, 112 Reg. Ry. Engrs	A. E. F., France
Fellows, Reeda, IV, 1917, Teacher	Antlers, Oklahoma
Fennema, Nick, I, 1915, Superintendent of Creamery	Johnson City, Tennessee
(Finch) Connell, Laura, IV, 1915, at home	Dallas, Texas
Finnell, H. H., I, 1917, Farm Foreman, College Farm	Stillwater, Oklahoma
First, Fearn, VI, 1916, Teacher	Stillwater, Oklahoma
Fisher, Anna, IV, 1915, Extension Division, A. and M. College	Stillwater, Oklahoma
Fisher, Florence, IV, 1917, Teacher	CACHE, Oklahoma
Fisher, J. M., II, 1915, American Steel and Foundry Co.	Sharon, Pennsylvania
Fisher, J. G., II, 1910, Manager Cotton Plantation	Tempe, Arizona
Flower, A. W., III, 1902	Address Unknown
Ford, A. G., III, 1898, Financial Agent	Muskogee, Oklahoma
Ford, W. W., II, 1913, Teacher Manual Training	Cocoanut Grove, Florida
Forrester, D. R., I, 1913, Farmer and Stockman	Walnut Ridge, Arkansas
Forrester, Wirt E., I, 1915, Stockman	Cherokee, Oklahoma
Forsyth, Lieutenant A. E., I, 1917, Infantry Co., Camp Funston	Leon Springs, Texas
Foster, Faye E., I, 1915, 37th Balloon Co., Camp John Wise	San Antonio, Texas
Forsyth, Lieutenant Fred, II, 1917, 82d Field Artillery	Fort Bliss, Texas
(Foster) Rogers, Nell, I, 1914, at home	Miami, Oklahoma
Francis, Victor, II, 1906, Superintendent Light and Water Plant	Wagoner, Oklahoma
Freeman, Ray F., I, 1916, Stock Farm, Box 225	Fort Worth, Texas
French, Mattie, IV, 1917, Teacher	Cushing, Oklahoma
(Frieday) Barnett Almira, IV, 1912, at home	Crossett, Arkansas
Frenzel, H. H., II, 1912, Graduate Student, University of Wisconsin	Madison, Wisconsin
Friedemann, Theodore, V, 1915, Medical Corps, Base Hospital, Fort Hancock	Augusta, Georgia
Friedemann, Wm. G., V, 1914, M. S., 1916, Assistant in Chemistry, A. and M. College	Stillwater, Oklahoma
Fricr, C. H., II, 1911, Milwaukee Electric Light and Railway Co.	Milwaukee, Wisconsin
Funda, F. P., II, 1910, 32d Engrs.	Camp Grant, Illinois
Gaash, Glen, II, 1909, Sinclair Cudahy Co.	Tulsa, Oklahoma
Gager, E. H., II, 1908, Substation Dept., Commonwealth-Edison Co.	Chicago, Illinois
Gallagher, E. C., II, 1909, Physical Director, A. and M. College	Stillwater, Oklahoma
Galyon, E. O., II, 1911, Jr. Lieut., U. S. S. Von Stuben	Postmaster, New York
Gammie, R. J., II, 1910, Valuation Dept., Texas and Pacific Ry. Co.	Dallas, Texas
Gardner, Frank, II, 1911, Engineer, Stone & Webster Engineering Co.	Dallas, Texas
Garrett, Emmett L., VI, 1915, Coach in High School, 571 Congress street	Leavenworth, Kansas

*Deceased.

Gaudian, Will, II, 1912, Electric Division, Panama Canal, 24 Pedro Miguel	Canal Zone, Panama
Getgey, Lieutenant John J., V, 1914, Co. E, Infantry	Camp Travis, Texas
Gilbert, N. T., III, 1898, Banker	Tulsa, Oklahoma
Gilbert, J. C., I, 1904	Address Unknown
Gilmer, T. P., II, 1913, Coast Artillery	Boston, Massachusetts
Gloekner, G. L., II, 1917, Aeronautical Detachment, Naval	Miami, Florida
Goff, T. T., III, 1900, Teacher in State Normal School	Whitewater, Wisconsin
Gollehon, Floyd, II, 1910, Piano Salesman	Cherokee, Oklahoma
Goltry, Lieutenant H. U., V, 1913	Camp Funston, Kansas
Goom, Austin, V, 1912, Banker	Ripley, Oklahoma
Gordon, Mae F., IV, 1916, Teacher in High School	El Reno, Oklahoma
(Gordon) Walters, Julia, VI, 1916, at home	El Reno, Oklahoma
Gougler, F. A., I, 1909, Farm Agent	Warrensburg, Missouri
Graham, Douglas S., V, 1914, Fourth Training Camp	Camp Pike, Arkansas
Graham, Lieutenant Earl E., I, 1915	Military Service
Graham, Milton C., VI, 1916, County Agent	Little Rock, Arkansas
Graham, Quinton, II, 1914, Engineering Dept., Westinghouse Electric Co.	Wilksburg, Pennsylvania
Granberry, Carl E., VI, 1914, Medical Student, University of Mississippi	Lake, Mississippi
Gravelle, E. E., II, 1913, City Engineer	Coalgate, Oklahoma
(Gray) Wheeler, Ruth, V, 1917, at home	Blackwell, Oklahoma
Gray, W. F., I, 1912, County Agent	Woodward, Oklahoma
Gray, Lieutenant Willis D., II, 1917, A. E. F., Aviation	France
(Gray) Wood, Mina, IV, 1916, at home	Watonga, Oklahoma
Green, Wm. J., I, 1916, Assistant Boys Club Agent	Stillwater, Oklahoma
Gregory, H. W., I, 1914, Dairy Dept., Purdue University	Lafayette, Indiana
Greiner, F. M., III, 1899, Chemist, Brant Street, Sixth and Vanburen	Gary, Indiana
Griggs, Oscar C., VI, 1915, Teacher	Sapulpa, Oklahoma
Gulick, H. S., II, 1903, Metallurgical Engineer, Moore-Jones Brass and Metal	St. Louis, Missouri
Company	Chicago, Illinois
Guynn, P. N., II, 1904, Illinois Steel Co.	Laramie, Wyoming
(Hagar) Groves, Hyral S., V, 1910, at home	Camp Pike, Arkansas
Hagar, Lieutenant Wm. E., I, 1914, Co. H, 346th Infantry	Drumright, Oklahoma
(Hale) Cooley, Fannie, VI, 1917, Teacher	Garland, Arkansas
Hall, Roy V., II, 1911, Levee and Drainage Engineer	Apache, Oklahoma
Hall, Ethel F., VI, 1914, Teacher	Military Service
Hamblin, Clyde M., II, 1904	Webb City, Missouri
Hamilton, F. C., V, 1910, Chemist, Acid Plant, Atlas Powder Co.	Military Service
Hamilton, J. Homer., V, 1910	Stillwater, Oklahoma
Hamilton, Fearn, V, 1913, Instructor, English Dept., A. and M. College	Stillwater, Oklahoma
Hamon, C. A., II, 1910, Service Dept., Westinghouse Electric and Mfg. Co., 233	Salt Lake City, Utah
N. First West street	Dover, New Jersey
Hamon, R. J., V, 1911, Chemist, U. S. Bureau of Mines	Davie, Florida
Hamon, Fannie, V, 1908, at home	Oklahoma City, Oklahoma
(Hancock) Hess, Joy B., IV, 1909, at home	Oklahoma City, Oklahoma
Hancock, A. V., II, 1907, Oklahoma office, Southwest General Electric Co.	Oklahoma City, Oklahoma
(Hannifin, Vance, Edna J., IV, 1914, at home	Corwin, Kansas
Hann, F. R., II, 1912, Instructor in Manual Training	Houston, Texas
Harnden, Lieutenant M. G., I, 1917, 17th Cavalry	Douglas, Arizona
Harnden, F. D., VI, 1914, Superintendent of Schools	Jennings, Oklahoma
Harnden, E. E., VI, 1912, Instructor in Bacteriology and Chemistry, A. and M.	Stillwater, Oklahoma
College	Morris, Oklahoma
Harris, Inez, VI, 1914, Teacher	Fort Supply, Oklahoma
Harris, Motier, VI, 1917, Superintendent of Schools	Camp Pike, Arkansas
Harrison, Lieutenant L. D., V, 1913, 334th F. A., N. A.	Military Service
Hart, Haden, I, 1913	Manhattan, Kansas
Hartenbower, A. C., I, 1905, Leader Extension School, Farmers Institute	Tulsa, Oklahoma
Hartman, T. J., III, 1898, Banker	Military Service
Hartshorne, E. C., II, 1912	Chicago, Illinois
Harvey, C. F., II, 1911, Consulting Engineer, 2013 Peoples Gas building	Springfield, Massachusetts
Harvey, Lieutenant J. W., II, 1913, C. A. C.	Devol, Oklahoma
Harvey, Ruth, VI, 1916, Teacher	Stillwater, Oklahoma
Hastings, Alice A., IV, 1905, Stewardess, Cafeteria, A. and M. College	Deer Creek, Oklahoma
.....	Military Service
Hatch, Hazel A., VI, 1916, Superintendent of Schools	Stillwater, Oklahoma
Havenstrite, R. W., I, 1915	Wynnewood, Oklahoma
Hayes, P. H., VI, 1917, Assistant Poultry Club Agent	Miami, Oklahoma
Hays, Clara, VI, 1916, Teacher	Waukomis, Oklahoma
Haymes, W. R., I, 1917, with Silver Crown Mining Co.	
Hays, Glenn G., VI, 1915, Teacher	

Hays, Frank A., I, 1908, Assistant in Animal Husbandry, Iowa State College	Ames, Iowa
Hedger, H. R., I, 1913	Camp Travis, Texas
Heilman, Paul L., VI, 1916, Headquarters, Barracks of Embarkation	Newport News, Virginia
Helmer, Richard A., II, 1917, 1st Co., Casualty Dentention Detachment	Camp Travis, Texas
Hemphill, Lieutenant Ora L., II, 1909	Military Service, France
Henderson, Georgia, VI, 1916, Teacher	Yale, Oklahoma
Hendrickson, Elmo, I, 1916, Farmer	Boynton, Oklahoma
Henson, Ethel, IV, 1915, Teacher	Ralston, Oklahoma
(Herndon) Herron, May, IV, 1914, at home	Idabel, Oklahoma
Herrick, H. C., II, 1912, Salesman, Automobiles	Enid, Oklahoma
Herron, L. G., I, 1913, County Agent	Idabel, Oklahoma
Heston, Lucille, VI, 1916, Teacher	Devol, Oklahoma
Heston, Lieutenant Adrian, II, 1915, 84th Aero Squadron, Kelly Field	San Antonio, Texas
Hewett, Norma, IV, 1916, Teacher of Home Economics	Oilton, Oklahoma
Hewett, Paul M., M. S. in Agriculture, 1915, Instructor in Agriculture	Agricultural College, Mississippi
Hiet, Sadie, IV, 1915, Teacher	Lela, Oklahoma
Hiet, M. E., II, 1912, General Manager of Firm of Hiet & Son	Lela, Oklahoma
Hildebrand, L. E., II, 1910, Physics Dept.	Chicago, Illinois
(Hill) Wilber, Ruth B., IV, 1917, at home, 829 W. Eleventh street	Oklahoma City, Oklahoma
Hitchcock, Ethel, VI, 1917, Teacher	Goldonna, Louisiana
Hitchcock, Edith, VI, 1917, Teacher	Goldonna, Louisiana
Hilgenberg, L. W., VI, 1916, Oil Salesman	Tulsa, Oklahoma
(Hill) Bartlett, Vera May, VI, 1912, at home	Rye, Colorado
Hines, E. G., II, 1905, Hines-Merkle Machinery Co.	Kansas City, Missouri
Hinkel, Sergeant John W., V, 1917, Base Hospital Laboratory	Camp Travis, Texas
Hobbs, Lieutenant Hugh, II, 1912	Camp Pike, Arkansas
Hoke, C. E., I, 1907, In Charge of Farm Management Investigations in Oklahoma	Stillwater, Oklahoma
Hoke, H. G., II, 1907, Head Salesman, Cronston Division, Westinghouse Electric and Mfg. Co.	Brooklyn, New York
Hoke, Rhoda C., IV, 1914, at home	Stillwater, Oklahoma
Hoke, Mac, I, 1912, Agriculturist, County Demonstrator	Enterprise, Oregon
Hoke, Lieutenant George A., V, 1911, 309th Field Signal Battery	Camp Taylor, Louisville, Kentucky
Hoke, Lieutenant Roy T., I, 1917, Co. M, 346th Infantry	Camp Pike, Arkansas
(Holford) Talbot, Ina, VI, 1914, at home	Kansas City, Missouri
Hoggard, Paul, VI, Cameron State School of Agriculture	Lawton, Oklahoma
Holleman, Gertrude, IV, 1914, Teacher	Salt Lake, New Mexico
Holmes, D. L., V, 1908, Physical Director, Cass School of Technology	Detroit, Michigan
Holmes, O. W., I, 1908	Columbus, Ohio
Holton, Pauline, IV, 1915, Teacher	Quinlan, Oklahoma
Hoover, G. W., III, 1903, Chemist, U. S. Food and Drug Laboratory	Chicago, Illinois
Hopps, C. W., II, 1911, Public Service Commission, 311 E. High street	Boundville, New Jersey
Horner, John T., VII, 1916	Guthrie, Oklahoma
Horton, Lieutenant E. E., I, 1916, 48th Infantry, U. S. A.	Newport News, Virginia
(Houck) Stewart, Afton, VI, 1916, at home	Independence, Kansas
House, R. M., II, 1903, Hardware Business	Bristow, Oklahoma
Houston, M. Gladys, III, 1903, Teacher	Goodrich, Idaho
Howell, Carl, II, 1906, 8 Fernwood Place	Upper Montclair, New Jersey
Hubler, W. A., II, 1910, Chemist for Illinois Steel Co.	Gary, Indiana
Huddleson, I, Forrest, V, 1915, Infirmary, Camp Greenleaf	Fort Oglethorpe, Georgia
Huffman, Louis D., V, 1914	Military Service
Hufnagle, Chas., I, 1913, Instructor in Bacteriology, University of Ohio	Columbus, Ohio
Hughes, Pauline, VI, 1917, Stenographer, J. E. Sater, Abstractor	Stillwater, Oklahoma
Hunt, Gertrude, III, 1902, Teacher	San Diego, California
Hurst, J. B., I, 1917, Headquarters Co., 357th Infantry	Camp Travis, Texas
Hurst, R. Bradford, II, 1901, Hospital Steward, U. S. Navy	Sitka, Alaska
(Hurst) Spits, Nina B., III, 1903, at home	Address Unknown
Ives, Lieutenant E. E., II, 1917, Aviation	A. E. F., France
Ives, F. H., I, 1910, Head Department of Agriculture, Central State Normal	Edmond, Oklahoma
Jablow, Mrs. Chas., IV, 1915, at home	Stillwater, Oklahoma
Jack, Eula, VI, 1917, Principal of Consolidated School	Healdton, Oklahoma
Jackson, J. A., II, 1916	

Jackson, Wm. E., I, 1914, Fourth Officers Training Camp	Camp Pike, Arkansas
Jacob, A. W., I, 1913, County Agent	Mora, Minnesota
Jacob, L. O., I, 1913, County Agent	Anoka, Minnesota
Jacobs, Ethelyn, VI, 1915, at home	Woodburn, Oregon
James, Cornelia, VI, 1916, at home	Stillwater, Oklahoma
James, Helen, IV, 1913, Assistant Bookkeeper in Stillwater National Bank	Stillwater, Oklahoma
Janeway, George M., III, 1902, Banker	Collinsville, Oklahoma
Janeway, Helen, IV, 1913, Teacher	Drumright, Oklahoma
Janeway, Lenore, V, 1908, Teacher	Abilene, Texas
Jarrell, A. E., III, 1896, Clerk, A. T. and S. F. Ry. Co.	San Francisco, California
(Jarrell) Hartman, Mary, II, 1903, at home	Tulsa, Oklahoma
Jeffords, Sherman, I, 1912, Co. 53. Detachment B, 165th Depot Brigade	Camp Travis, Texas
Jeffords, Mary, IV, 1914, Teacher, 1145 Aubert street	St. Louis, Missouri
Jessee, W. B., I, 1911, Farmer	Supply, Oklahoma
Jewett, Kate A., III, 1901, at home	Udall, Kansas
Jewson, S. B., I, 1912, Acting Horticulturist, Arizona Experiment Station and Assistant Professor of Horticulture, University	Tucson, Arizona
Johnson, Norma N., V, 1909, Principal of School	Clinton, Oklahoma
Johnson, Harry E., VII, 1917	Camp Pike, Arkansas
Johnson, Laura W., VI, 1913, at home	Ada, Oklahoma
(Johnson) Crosby, Lucy, V, 1912, at home	Cincinnati, Ohio
Johnson, J. C., II, 1905	
Jones, E. L., II, 1904, Electrical Engineer	San Jose, California
Jones, Fred L., V, 1917	Camp Pike, Little Rock, Arkansas
Jones, L. R., V, 1915, 33 Mullett street	Detroit, Michigan
Jones, S. C., II, 1910	Military Service, Houston, Texas
Jones, Daisy L., IV, 1914, at home	Stillwater, Oklahoma
(Jones) Kent, Eva, VI, 1914, at home	Morrison, Oklahoma
(Jones) Tuttle, Jeanne, VI, 1916, at home	Cushing, Oklahoma
Jones, C. V., III, 1902, Lawyer	Clay Center, Kansas
Jordan, Charles N., VI, 1914, Teacher	Fredericktown, Missouri
Katz, Henrietta, VI, 1915, Teacher	Sapulpa, Oklahoma
Keller, Floyd, V, 1917, 1st Battery	Camp Pike, Arkansas
Kenyon, W. D., VI, 1914, County Agent	Guymon, Oklahoma
Kenworthy, Chester, I, 1916, Field Signal Battery	Camp Pike, Arkansas
Kenyon, Lucile, VI, 1915, Teacher	Stillwater, Oklahoma
Kenyon, R. S., II, 1903	Address Unknown
Kenyon, R. E., II, 1910, Sales Agent, General Electric Co.	Oakland, California
Kerr, R. H., III, 1903, Chemist, Bureau of Animal Industry, U. S. Dept. of Agriculture	Hyattsville, Maryland
Keys, Alma, IV, 1917, Teacher, Putnam City School	Oklahoma City, Oklahoma
Kezer, C. L., III, 1901, Superintendent of Schools	Bellingham, Washington
Kidd, J. W., II, 1904, Professor Engineering, State School of Mines and Metallurgy	Fort Bliss, Texas
Kile, Eugene, VI, 1915	Cushing, Oklahoma
(Kilpatrick) Gregory, May, IV, 1914, at home	Lafayette, Indiana
Kilpatrick, Chas., I, 1917, 3d Recruit Detachment	Fort Totten, New York
Kilpatrick, Earl, I, 1912	Military Service
Kimball, Lieutenant James Albert, I, 1917	Camp Pike, Arkansas
Kinder, W. E., III, 1903, Employee, Standard Oil Co.	Wichita, Kansas
King, Beverly D., II, 1910, Secretary and Treasurer, Norris Engineering Co.	Wharton, Texas
(Kilpatrick) Anderson, Victoria, V, 1910, at home	American Falls, Idaho
Kirkpatrick, Katie C., V, 1911, Teacher	Crockett, Texas
Kirkpatrick, Cecil, IV, 1909, Professor of D. S. in High School	Chickasha, Oklahoma
Knauss, E. J., I, 1905, Druggist, 24 Lester street	Kansas City, Missouri
Knight, Lillian, VI, 1917, Teacher	Yale, Oklahoma
Knoblock, Lieutenant F. L., II, 1912, Battery 2	Camp Funston, Leon Springs, Texas
Knoblock, Lieutenant Cecil C., V, 1915, M. P. Co., F. A. R. D.	Camp Jackson, Columbia, South Carolina
Kolshorn, Agnes, V, 1913, Head of H. E. Dept., and Dept. of Natural Sciences, Colorado Woman's College	Denver, Colorado
Kooker, E. R., I, 1910	Military Service
Kraemer, Marguerite, VI, 1915, Principal of High School	Perry, Oklahoma
Krall, J. A., I, 1913, Instructor, Iowa State College	Ames, Iowa
Kratka, Ralph, III, 1902, Inspiration Con. Copper Co.	Miami, Arizona
Krepps, Samuel J., Jr., II, 1914, Hillman Oil and Gas Co.	Cushing, Oklahoma
Krone, Floy C., VI, 1916, Teacher	Chandler, Oklahoma
Lahman, Ruth, V, 1914, at home	Stillwater, Oklahoma
Lahman, W. L., III, 1909, 272d Aero Squadron	Ellington Field, Houston, Texas
Lane, F. P., I, 1913, County Agent	Newton, Kansas
Lantz, A. G., II, 1907, Contractor	Orland, California
Lantz, C. R., II, 1907, Electrical Engineer, Tacoma Drainage Co.	Tacoma, Washington

*Deceased.

Leichti, H. S., II, 1911	Address Unknown
Letter, C. R., I, 1908, Department Dry Land Agriculture, U. S. Dept. of Agriculture	San Antonio, Texas
Lewis, Clarence W., II, 1916, 234 Clark street	Augusta, Kansas
Lewis, Arthur C., III, 1901, Assistant State Entomologist	Atlanta, Georgia
Lewis, E. G., I, 1896, Oil Business	Tulsa, Oklahoma
(Lewis) Johnston, Myrtle I., IV, 1910, at home	Tucson, Arizona
Lewis, Carrie, III, 1905, Teacher	Enid, Oklahoma
Lincoln, H. J., II, 1903, Machinshop Foreman, A. T. and S. F. Ry. Co.	Chicago, Illinois
Lindsay, R. V., II, 1909, Farmer	Kingfisher, Oklahoma
(Losey) Barnes, Portia M., IV, 1913, at home	Tucson, Arizona
Loomis, Alden H., I, 1916	Military Service
Lovell, Clemens M., II, 1916, Westinghouse Electric Co.	Wilkesburg, Pennsylvania
Lovell, Thomas J., II, 1912, Draftsman, Southern California Edison Co.	Los Angeles, California
Lovett, A. E., I, 1904, County Agriculturist and Agent, U. S. Dept. of Agriculture	Redmond, Oregon
Lovett, A. L., I, 1908, Entomologist, Oregon Agricultural College	Corvallis, Oregon
Lowery, Lieutenant Phil H., I, 1916	Camp Pike, Arkansas
Lowman, E. F., V, 1912, Superintendent of Schools	Red Oak, Oklahoma
Lowry, C. H., III, 1902, Lawyer	Stillwater, Oklahoma
(Lowry) Utt, Ethel, IV, 1913, at home	Houston, Texas
(Lowry) McKee, Theo., III, 1906, at home, 129 East Side Boulevard	Muskogee, Oklahoma
Lowry, Fearn, V, 1916, Student, Cornell University	Ithaca, New York
Lynch, H. W., II, 1912, Substation Operator, Commonwealth-Edison Co.	Chicago, Illinois
McArthur, C. L., III, 1911, Extension Division, Oregon Experiment Station	Corvallis, Oregon
McCarrel, Fred, VI, 1916, Instructor, School of Education, A. and M. College	Stillwater, Oklahoma
McBride, R. V., I, 1915	Military Service
McBride, H. F., II, 1903	Address Unknown
(McBride) Matherly, Iva, IV, 1910, at home	Sugar Grove, North Carolina
McBride, J. F., II, 1904	Military Service
McBride, J. D., I, 1911, Co. 24, Fort Harbor	Boston, Massachusetts
McCall, J. G., I, 1908, Instructor in Agriculture	Bloomington, Minnesota
McCaslin, W. W., II, 1912, Substation Operator	Canal Zone, Panama
McClure, Marguerite S., V, 1914, at home	McAlester, Oklahoma
McCollum, Lieutenant W. W., V, 1917, Depot Brigade	Camp Grant, Illinois
McConnell, Marjorie, VI, 1915, Teacher	Jenks, Oklahoma
McElroy, C. E., II, 1917	Fortress Monroe, Virginia
McElroy, C. H., I, 1906, Assistant Professor of Bacteriology, A. and M. College,	Stillwater, Oklahoma
McIlvain, Chas., I, 1913, Farmer	Ponder, Texas
*McIntyre, J. C., II, 1911	
McKay, M. B., VI, 1911, Assistant Plant Pathologist, Oregon Agricultural College	Corvallis, Oregon
McLelland, Wm., I, 1914, Farmer	East Point, Louisiana
McLelland, Mathilde, VI, 1914, Student Sargent's School	Cambridge, Massachusetts
McMullin, Lieutenant Samuel L., II, 1909, 1st Co., R. O. T. Bn., Camp Alfred Vail	Little Silver, New Jersey
McPheeters, A. A., I, 1912, County Agent	Guthrie, Oklahoma
McPheeters, Marguerite, IV, 1912, Professor of Home Economics Dept.	Edmond, Oklahoma
McPheeters, T. R., VI, 1917, Superintendent of Schools	Edmond, Oklahoma
McPheeters, Martha, IV, 1913, Cottage Cheese Specialist, Extension Division, A. and M. College	Stillwater, Oklahoma
McPheeters, Wm. H., II, 1909, Assistant Professor of Physics, Texas A. and M. College	College Station, Texas
McReynolds, A. B., III, 1899, Accountant, Southern Milling Co.	King City, California
McReynolds, S. A., III, 1902, Chemist, 2055 W. Adams street	Chicago, Illinois
Madigan, Blanche, IV, 1917, Teacher in Home Economics	Ardmore, Oklahoma
Malone, J. S., I, 1900, Professor of Animal Husbandry, A. and M. College	Stillwater, Oklahoma
*Mannheimer, Ruth, IV, 1915	
Mantle, Lieutenant Guy, I, 1915	Military Service, France
Marker, Captain Walter, I, 1914, 111th Depot Co.	Camp Grant, Illinois
Maroney, Hugh W., V, 1917, Principal of High School	Markham, Oklahoma
Marple, Verne, III, 1904	Denver, Colorado
Marsh, Corinne, IV, 1915, at home	Springfield, Missouri
Marsh, Venus Lee, V, 1913, Teacher	Springfield, Missouri
Marsh, Wm. R., II, 1916	Military Service

*Deceased.

Martin, Ewing, VI, 1917, Teacher	Collinsville, Oklahoma
Martin, John Elmer, V, 1917, Evacuation Hospital No. 8	Fort Oglethorpe, Georgia
Marx, Lieutenant Lloyd, II, 1915, Depot Quartermaster Corps	Camp Doniphan, Oklahoma
Marx, Myron, II, 1917, Teacher	Jennings, Oklahoma
Mason, Will J., II, 1916	Military Service
Mathews, Richard N., V, 1917, Chemist, 215 N. Boulder	Tulsa, Oklahoma
Mathieu, Elro, I, 1917, 35th Railway Engineers, Med. Detachment	A. E. F., France
Mayall, S. J., II, 1911, Lumber Business	Oatman, Arizona
Mayer, Sylvia, IV, 1915, Teacher of Domestic Science	Drumright, Oklahoma
Means, P. E., II, 1908, Burro Mountain Copper Co.	Tyrone, New Mexico
Melton, Armon, V, 1915, Headquarters Co., 335th F. A.	Camp Pike, Arkansas
Melton, W. A., II, 1913	Camp Custer, Michigan
Merrifield, F. R., I, 1913, Evacuation Hospital No. 15	Fort Riley, Kansas
Merrill, A. J., II, 1913, 516 Columbia building	Charleston, West Virginia
Merry, George, V, 1913, M. S., 1915, Chemist, Consumers Refining Co.	Cushing, Oklahoma
Merydith, C. S., I, 1912, U. S. Dept. of Agriculture	Piggott, Arkansas
Miller, Bertha, V, 1906, at home	Beeville, Texas
Miller, Ella, VI, 1914, Dean of Fine Arts, Phillips University	Enid, Oklahoma
* Miller, L. C., I, 1900	
Miller, Esther C., IV, 1914	Stillwater, Oklahoma
Miller, Hilma, IV, 1914, High School Teacher	Ripley, Oklahoma
Miller, Maude, III, 1903, Bookkeeper, 711 Lewis street	San Antonio, Texas
Millikan, Chas. V., V, 1917, Manager, Tiger Drug Store	Stillwater, Oklahoma
Miltimore, Cora A., III, 1899, Urban Agent, Extension Division, A. and M. College	Muskogee, Oklahoma
Mitchell, Joe, VI, 1915, Co. 359th Infantry	Camp Travis, Texas
Mitchell, L. C., V, 1909, Chemist, Food and Drug Laboratory, Bureau of Chemistry, U. S. Dept. of Agriculture	St. Louis, Missouri
Mitschrich, M., II, 1913, Westinghouse Electric and Mfg. Co, 4252 W. Pine street	St. Louis, Missouri
Mittendorf, Lieutenant T. H., I, 1917, 42d Recruit Squadron, Aviation Field	Houston, Texas
(Mondy) Roberts, Beulah, IV, 1916, at home	Oklahoma City, Oklahoma
Moore, Mrs. Helen Kyger, VI, 1916, at home	Stillwater, Oklahoma
Moore, J. A., V, 1911, Mountain State Tel. and Tel. Co.	Denver, Colorado
Moore, A. I., II, 1908, Minister	Beggs, Oklahoma
Moore, R. H., V, 1908, G. E. Moore & Son Abstract and Loans	Stillwater, Oklahoma
Moorman, Helen, IV, 1916, Teacher	Stillwater, Oklahoma
Moote, T. P., II, 1910, Student, University of Illinois	Champaign, Illinois
Morgan, Pernice, III, 1904, Oregon State Bank	Bend, Oregon
Morgan, Vera, IV, 1917, Teacher	Shamrock, Oklahoma
Morris, Clinton, III, 1898, 143 Laurel avenue	North Highlands, Macon, Georgia
Morris, O. M., I, 1896, Head Dept. of Horticulture, State College of Washington	Pullman, Washington
(Morrison) Harrison, Virginia, VI, 1915, at home	Stillwater, Oklahoma
(Morrison) Berry, Edwina, III, 1907, at home	Stillwater, Oklahoma
* Morrow, C. E., II, 1903	
(Morrow) Watkins, Jessie, III, 1903, Home Demonstration Agent	Clinton, Oklahoma
(Morrow) Hall, Ella May, IV, 1914, at home	Garland, Oklahoma
Morrow, Bertha J., IV, 1914, Teacher in High School	Jenks, Oklahoma
Moseley, Frances, VI, 1917, Teacher	Stillwater, Oklahoma
*(Moskedoll) McArthur, Olga	
Moyer, O. J., I, 1917, Emergency Field Club Agent, A. and M. College	Stillwater, Oklahoma
Mullen, Clyde, I, 1915, Assistant in Agronomy, State Agricultural College	Manhattan, Kansas
Muncie, Blanche, IV, 1917, Teacher	Wynnewood, Oklahoma
Murray, Lieutenant C. E., I, 1917	A. E. F., France
Myers, S. E., III, 1899, A., T. and S. F. Ry. Co.	Perry, Oklahoma
Nash, Byron M., II, 1917, Quartermaster Corps, N. A.	Camp Pike, Arkansas
Naylor, Lieutenant Harold R., I, 1916, Headquarters Co., 343d Division	Camp Bowie, Texas
Needham, I. R., I, 1915	Camp Pike, Arkansas
Needham, Ollie, II, 1901, Westinghouse Electric and Mfg. Co.	Pittsburgh, Pennsylvania
Neerman, Katherine, V, 1917, Bacteriologist, 439 Valentine building	Toledo, Ohio
Nellis, H. W., II, 1912, Government Service	Canal Zone, Panama
Nelson, Lieutenant Joe S., II, 1917, F. A. T. C.	A. E. F., France
(Nelson) Chandler, Lila E., III, 1903, at home	Kalispell, Montana
Nelson, I. A., V, 1917, Graduate Student Assistant in Chemistry, A. and M. College	Stillwater, Oklahoma
Nelson, Vinita, IV, 1916, Teacher of Home Economics	Eufaula, Oklahoma
Nelson, Stella, III, 1903, Druggist	Washington, D. C.

*Deceased.

Nelson, J. A., III, 1905, Physician, No. 1, R street, N. E.	Washington, D. C.
Nelson, Cyrus W., III, 1903, Physician and Surgeon	Liberty, Texas
Nelson, Abigail E., III, 1907, Druggist	Washington, D. C.
Nettack, Joe, II, 1917	Military Service
(Newcomb) Crom, Bonnie, III, 1907, at home	Chicago, Illinois
Newell, Rose, VI, 1917, Principal of High School	Kiefer, Oklahoma
(Newman) Frenzel, Iva F., IV, 1912, 537 W. Washington avenue	
Newland, Mrs. Minnie, V, 1912	Madison, Wisconsin
Newman, Eleanor, V, 1914, Student, University of Missouri	Columbia, Missouri
Newman, Leo M., II, 1910, Geologist, Carter Oil Co.	Tulsa, Oklahoma
(Neilson) Taylor, Mary A., III, 1903, at home	Perry, Oklahoma
North, Esther A., III, 1903, Teacher of Home Economics	Helena, Oklahoma
North, Kate, IV, 1912, Instructor in Home Economics, North Dakota Agricultural College	Fargo, North Dakota
Notson, F. Carl, II, Chief Electrician, Coast Patrol	Sanford, Connecticut
O'Brien, G. E., I, 1913, State Dept. of Agriculture	Des Moines, Iowa
Oldham, Albert E., V, 1915, Division Field Hospital	Fort Worth, Texas
Oldham, Rhodella, IV, 1917, Teacher	Perry, Oklahoma
Olentine, Fred B., III, 1906, Physician and Surgeon, St. Anthony's Hospital	Chicago, Illinois
Olmstead, Captain M. E., V, 1915, 61st Infantry	A. E. F., France
Orr, Paul F., V, 1915, Assistant Bacteriologist, City Health Dept.	Toledo, Ohio
Osborn, John, II, 1906	Address Unknown
(Oschman) Ross, Hattie, III, 1907, at home	Claremore, Oklahoma
Oschman, Maude, V, 1912, High School Teacher	Nowata, Oklahoma
Otey, M. J., V, 1902, Financial Secretary and Purchasing Agent, Oklahoma A. and M. College	Stillwater, Oklahoma
Oursler, Lieutenant A. C., I, 1910, Co. A, Infantry	Camp Stanley, Texas
Oursler, Anna L., V, 1914, Teacher	Arapaho, Oklahoma
Oursler, Elizabeth, VI, High School Teacher	New Madrid, Missouri
Painter, Ray H., V, 1912, U. S. Dept. of Agriculture	Missouri
Parker, Hazel, IV, 1917, Teacher	Sulphur, Oklahoma
Patterson, W. H., II, 1915	Military Service
Payne, Wm. F., V, 1915	Military Service
Payne, L. F., I, 1912, Instructor in Poultry Husbandry, Massachusetts Agricultural College	Amherst, Massachusetts
(Pearson) Melton, Thirza, IV, 1913, at home	Battle Creek, Michigan
Peck, O. T., II, 1908, Book Business	Stillwater, Oklahoma
Peck, C. P., I, 1914, Book Business	Stillwater, Oklahoma
Peck, H. L., II, 1915, Science and Research, Aviation	Camp McArthur, Waco, Texas
Pierson, Jas. W., I, 1916, Farmer and Stockman	Pond Creek, Oklahoma
Pigg, H. F., H, 1902, Electrical Engineer, Witherbee, Sherman & Co.	Mineville, New York
Pochall, R. A., II, 1910, Teacher	Post Falls, Idaho
Pools, Grace, VI, 1917, Rural Teacher	Stillwater, Oklahoma
Potts, F. M., I, 1912, Farmer	Dexter, Michigan
Priest, Stella, V, 1912, Teacher of English, Oklahoma A. and M. College	Stillwater, Oklahoma
Radnish, Helen, IV, 1916, Teacher	Alva, Oklahoma
Ransom, Geo. R., I, 1916, County Agent	Clinton, Oklahoma
Ransom, Harry, I, 1917, Co. H, Oklahoma Infantry	Camp Travis, Texas
Rapp, C. W., I, 1915, Headquarters Co., 343d F. A., N. A.	Camp Travis, Texas
Rapp, Irma, IV, 1917, Teacher	Hobart, Oklahoma
Ratslaff, J. A., I, 1907, Assistant, Experimental Agronomy, University of Nebraska	Lincoln, Nebraska
Rector, F. L., V, 1902, Great Bear Spring Co.	Brooklyn, New York
Reed, Fred A., II, 1911	Suttons Bay, Michigan
Reeve, C. T., II, 1907, Electrical Engineer, 32 Chestnut street	Cohoes, New York
Reeve, J. R., II, 1915	Military Service
Reeve, H. W., I, 1907, Farmer	Mustang, Oklahoma
*Regnier, C. E., III, 1899	
Regnier, M. A., II, 1911	Address Unknown
Reichman, Elizabeth, V, 1915, Teacher, Public Schools	Oklahoma City, Oklahoma
(Reichman) Powers, Mabel L., V, 1915, at home	Chickasha, Oklahoma
Reichman, Maude, V, 1916, Teacher of Domestic Art, State Normal School	Alva, Oklahoma
Rinehart, Lieutenant Virgil, I, 1917, Co. F, 111th Reg. U. S. Engineers	Camp Bowie, Texas
Reynolds, F. S., I, 1915	Military Service
Reynolds, E. B., I, 1914	Military Service
Reynolds, O. H., II, 1914, Draftsman, Union Pacific Ry. Co.	Kansas City, Missouri
Rhinehart, Virgil, I, 1917, Co. F, 111 Reg. U. S. Engrs.	Camp Bowie, Texas
Rhodes, Lieutenant T. W., II, 1913, School of Aviation	Lake Charles, Louisiana

*Deceased.

Richards, Hattie, IV, 1912, High School Teacher	Denver, Colorado
(Reid) Arrington, Grace, IV, 1913, at home	Warner, Oklahoma
Reid, Guy Clifford, II, 1916, Fourth Officers Training Camp	Camp Pike, Arkansas
Ritter, L. B., V, 1910, Chemist, Kansas University	Lawrence, Kansas
Robertson, Reuben, I, 1917, Farmer	Stillwater, Oklahoma
Roberts, Clarence, I, 1915, Field Editor, Oklahoma Farmer-Stockman	Oklahoma City, Oklahoma
Robinson, Lieutenant William B., I, 1917, Co. A, 340th Infantry	Camp Pike, Arkansas
Robinson, Lieutenant Joe L., I, 1916	Camp Pike, Arkansas
Robinson, A. G., III, 1903, Assayer	Phoenix, Arizona
(Rockey) Evans, Nellie, VI, 1914, at home	Oklahoma City, Oklahoma
Roeser, Harry M., II, 1914, Bureau of Standards, Dept. of Commerce	Washington, D. C.
(Rogers) Faulds, Almira, IV, 1910, at home	Wauchula, Florida
(Rogers) McDowell, Bertha, I, 1916, at home	Muskogee, Oklahoma
Rose, Rollin M., I, 1915, Teacher	Yale, Oklahoma
Ross, Sam, II, 1911, Instructor in M. E. and Draftsman	Fort Collins, Colorado
Ross, J. K., II, 1910, Hardware Merchant	Madill, Oklahoma
(Ruble) Warren, Bertha, III, 1903, at home	Ada, Oklahoma
Rudd, E. L., II, 1912, Engineer, Western Electric Co.	Cicero, Illinois
Rush, W. S., II, 1905, General Manager, Rush Marine Signal Co.	New York City, New York
Russell, Margaret, IV, 1917, Teacher	Stigler, Oklahoma
Russell, Mamie, IV, 1915, at home, 2909 Classen boulevard	Oklahoma City, Oklahoma
Russell, Carl, I, 1914, County Agent	Ardmore, Oklahoma
Ryno, Madeline, IV, 1913, Teacher in High School	Stillwater, Oklahoma
Santee, L. A., II, 1913, Barnes building	Muskogee, Oklahoma
Savage, Orville M., I, 1916, Manager Free State Fair	Muskogee, Oklahoma
Schaefer, Paul, II, 1915, Underwood Magneto Co.	Drumright, Oklahoma
Schnurr, C., II, 1911, U. S. Geological Survey	Franklin, Virginia
Schreiber, S. C., I, 1913, Farmer	Harrison, Virginia
Schwark, C. W., I, 1914, Fruit-Grower	Canon City, Colorado
Scott, Lieutenant J. H., II, 1917, 18th Infantry	A. E. F., France
Scott, Wiley, I, 1915	Camp Pike, Arkansas
Scott, Izora, V, 1915, at home	Columbus, Montana
Scott, E. M., II, 1913, Commonwealth-Edison Co.	Chicago, Illinois
Scrivner, Lieutenant Russell, I, 1916	Camp Travis, Texas
Scruggs, P. G., I, 1915, Agriculturist, State School of Agriculture	Lawton, Oklahoma
Seeger, E. E., I, 1913, Headquarters Division, 344th M. G.	Camp Travis, Texas
Selement, F. G., II, 1910, Auto Repairing	Yukon, Oklahoma
(Selph) Wilson, Nina, IV, 1915, at home	Fort Towson, Oklahoma
Sexauer, Dorothy, IV, 1916, Assistant Home Demonstration Agent, Extension Division, A. and M. College	Stillwater, Oklahoma
(Semke) Harrington, Grace E., V, 1906, at home	Fairmont, Oklahoma
Shallenberger, Garvin, V, 1912, Assistant in Chemistry and Physics, Tulane University	New Orleans, Louisiana
Shaw, Anna M., VI, 1910, High School Teacher	Marietta, Oklahoma
Shaw, Aya, IV, 1914, Principal County High School	Jacksboro, Texas
Sheets, Grace, IV, 1916, Teacher, Wheelock Academy	Millerton, Oklahoma
Shiflett, H. D., I, 1913, Teacher	Marlow, Oklahoma
Shiflett, R. F., I, 1914, Teacher	Marlow, Oklahoma
Shiflett, R. C., I, 1911, Teacher of Agriculture, Panhandle Agricultural Institute	Goodwell, Oklahoma
Shinn, E. H., I, 1917	Camp Pike, Arkansas
Shiller, H. H., II, 1917	Placeda, Texas
Shiry, E. E., VI, 1914, Farmer	Shattuck, Oklahoma
Shively, R. Rex, III, 1902, Superintendent, Coal Products Co.	Pittsburgh, Pennsylvania
Short, Robert, I, 1913, Fourth Officers Training Camp	Camp Pike, Arkansas
Sieglinger, J., I, 1913, Bureau of Plant Industry, U. S. Dept. of Agriculture	Woodward, Oklahoma
Simank, Lieutenant Ben, II, 1915	San Antonio, Texas
Simank, Lieutenant E. W., II, 1914, Signal R. A. C. S., Ellington Field	Houston, Texas
Smeltzer, C. E., III, 1902, Physician	Fairview, Nevada
Smith, J. G., I, 1911, Real Estate Business	Dallas, Texas
Smith, John Graham, I, 1914, Ranchman	Newlin, Texas
Smith, E. J., II, 1914, Base Hospital Corps, No. 25	Camp Sherman, Ohio
Smith, A. Ray, I, 1915	Military Service
Smith, C. Ray, V, 1910, Co. 38, 165th Depot Brigade	Camp Travis, Texas
Smith, G. C., VI, 1917, Baker, Co. 4	Camp Funston, Kansas
Snyder, Beryl, VI, 1917, Teacher	Burke, South Dakota
*Smith, S. G., III, 1906	
Smith, Lieutenant R. R., V, 1913	Military Service
(Snyder) Jacobs, Georgia, IV, 1913, at home	Mora, Minnesota

*Deceased.

Spaulding, J. A., I, 1905, Assistant Cashier, Globe Grain and Milling Co.	Los Angeles, California
Spaulding, H. B., V, 1910, Medical Student, University of Michigan	Ann Arbor, Michigan
(Spear) Scrivner, Mary, IV, 1915, at home	Boerne, Texas
Spear, Maud, II, 1915, at home	Bismark, North Dakota
Spencer, E. L., I, 1915, Co. 11, Training Battalion 165, Depot Brigade	Camp Travis, Texas
Spidel, H. M., I, 1910, Farmer	Rome, Iowa
Spohn, R. E., II, 1910, Farmer	Glencoe, Oklahoma
Spohn, Carolyn M., IV, 1915, at home	Glencoe, Oklahoma
Springer, Mamie, V, 1909, at home	Cushing, Oklahoma
(Spurrier) Hedger, Kara, IV, 1917, at home, 604 S. Jennings street	Fort Worth, Texas
Stallings, Ida, IV, 1915, Bacteriologist, 303 Dugan and Stevens building	Hot Springs, Arkansas
Stanley, May, VI, 1915, Teacher in High School	Stillwater, Oklahoma
Stansbury, Anna A., V, 1915, Principal of Schools	Lovell, Oklahoma
Stebbins, A. A., II, 1909, Postmatser	Garber, Oklahoma
Stebbins, R. R., V, 1909, Farmer	Garber, Oklahoma
Stevens, H. I., III, 1904, Chemist, St. Louis Surface Paint Co	St. Louis, Missouri
Stevens, Margaret M., IV, 1914	Stillwater, Oklahoma
(Stewart) Jesse, Annabel, V, 1911, at home	Supply, Oklahoma
Stewart, F. L., II, 1909, Science Division, Aviation	Camp McArthur, Waco, Texas
Stiles, G. W., III, 1900, Bacteriologist, Bureau of Chemistry, U. S. Dept. of Agriculture	Denver, Colorado
Stinson, C. C., I, 1914, County Agent	Ryan, Oklahoma
(Stover) Olson, Nanna, V, 1908, at home	Cushing, Oklahoma
(Stover) Gougler, Ida M., V, 1908, at home	Warrensburg, Missouri
Stout, Chas. Gordon, II, 1916	Military Service
Straub, Otto, I, 1910, Co. E, 334th Infantry	Camp Taylor, Kentucky
Surtees, Lieutenant L. V., I, 1917, 2d Co. Infantry	Camp Funston, Leon Springs, Texas
Swope, H. M., II, 1913, C. E., Engineer	Los Vegas, New Mexico
(Swope) Dolde, Emma H., III, 1898, Panama Apartments	Long Beach, California
(Talbot) Buchanan, Gertrude, VI, 1913, at home	Marshalltown, Iowa
Talbot, Nora A., VI, 1910, Professor of Domestic Art, A. and M. College	Stillwater, Oklahoma
Talbot, A. E., I, 1912, Aines Farm Dairy	Kansas City, Missouri
(Tankersley) McAninch, Lola M., III, 1905, at home	Stillwater, Oklahoma
Tarr, W. A., II, 1904, Assistant Professor of Geology and Mineralogy, Missouri University	Columbia, Missouri
Tate, J. A., II, 1909, Farmer	Oilton, Oklahoma
(Taylor) Swim, Inez, IV, 1915, at home	Stillwater, Oklahoma
(Taylor) Keith, Jatta, VI, 1916, at home, 2021 W. 16th street	Little Rock, Arkansas
(Taylor) Ellis, Jeannette, III, 1907, at home	Dresden, Tennessee
(Temming) Casteel, Ruth E., IV, 1912, at home	Sapulpa, Oklahoma
(Thatcher) Bost, Jessie O., III, 1897, at home	Alva, Oklahoma
Thomas, J. R., I, 1915, County Agent	Medford, Oklahoma
Thomas, Martha, IV, 1917, Teacher	Supply, Oklahoma
Thomas, Olive B., IV, 1916, Assistant in Home Economics, Central State Normal School	Edmond, Oklahoma
Thompson, Eugene, I, 1913, Farmer, F. D. 4, Box 141	Oklahoma City, Oklahoma
Thompson, Grady, VII, 1916, Oklahoma Oil and Gas Co.	Chelsea, Oklahoma
Thompson, Pauline, IV, 1915, Teacher, Oklahoma College for Women	Chickasha, Oklahoma
Thornberry, J. W., I, 1904, Buttermaker	Astoria, Oregon
Thornberry, W. T., II, 1903, Contractor, 3910, Euclid avenue	Kansas City, Missouri
(Thoroughman) Williams, Maude, III, 1904, at home	Perkins, Oklahoma
Tibbetts, F. J., II, 1910, General Electric Co.	El Paso, Texas
(Tice) Woodson, Eula, V, 1915, at home, 7725 Brashear	Pittsburgh, Pennsylvania
Tillotson, Bonnie, III, 1909, Teacher	Oklahoma City, Oklahoma
Tillotson, A. K., V, 1913	Military Service
Tingle, J. T., I, 1915	Military Service
Tippie, Geo. O., VI, 1917, Officers Training Camp	Camp Pike, Arkansas
Tongue, G. F., II, 1912, Fourth Officers Training Camp	Camp Pike, Arkansas
Tourtellotte, Lieutenant Evart, I, 1914, Battery D, 343d F. A.	Camp Travis, Texas
Treman, Herbert L., II, 1909, Edison Electric Illuminating Co	Brooklyn, New York
Trent, Dover, V, 1913, Superintendent of Schools	Cleveland, Oklahoma
Trueax, C. P., II, 1911, Armour & Co., 9032 Dauphin avenue	Chicago, Illinois
Turner, Homer, I, 1915	Military Service
Turner, Pearl, VI, 1917, Teacher	Porum, Oklahoma
Utt, O. G., II, 1913, Government Inspector Vessel Propellers	Houston, Texas

Vance, Lieutenant Alfred Wm., II, 1916, Aviation Field	Wichita Falls, Texas
Vance, Leon R., I, 1914, Grain Dealer	Corwin, Kansas
Vandervoort, L. A., II, 1912, Chestnut & Smith	Tulsa, Oklahoma
Venters, H. D., V, 1915, Assistant Bacteriologist, State Board of Health	Jacksonville, Florida
Vermillion, Rachel, VI, 1916, Teacher	Collinsville, Oklahoma
Vezey, E. E., II, 1910, Superintendent of Schools	Sweeney, Texas
Walker, K. D., I, 1913, Farmer	Seneca, Missouri
Walker, Ethel, V, 1902, High School Teacher	Orange, California
Walker, L. E., V, 1914, Teacher	Fort Worth, Texas
(Walker) Durand, Fay B., III, 1904, at home	Chicago, Illinois
Walker, Florence K., III, 1903, Stenographer, U. S. Geological Survey	Washington, D. C.
Walker, Veda, III, 1906, Librarian	Anahcim, California
Walker, Belle, III, 1902, at home	Oklahoma City, Oklahoma
(Walker) Swinford, Velma, at home	Stillwater, Oklahoma
*Walters, Julia, IV, 1913	
Walters, Margaret P., IV, 1910, Assistant Librarian, A. and M. College	Stillwater, Oklahoma
Walters, Minnie C., IV, 1910, Head of D. S. and A. Depts., McPherson College	McPherson, Kansas
Walters, Joe, I, 1917, Teacher	El Reno, Oklahoma
Ware, Alta, IV, 1915	Sapulpa, Oklahoma
Warren, Jessie M., IV, 1915, Teacher in High School	Adair, Oklahoma
Waters, Geo. A., Jr., I, 1916, Farmer and Stockman	Pawnee, Oklahoma
Watrous, Robert C., II, 1910, Jewelry Business	Cushing, Oklahoma
Watson, W. E., I, 1913, Teacher	Foley, Minnesota
Watson, Captain W. P., II, 1913, C. A. C., U. S. A.	A. E. F., France
Watson, Florence, VI, 1913, Teacher	Covington, Oklahoma
Watson, D. H., II, 1911	Military Service
Weaver, Lieutenant Carl W., VII, 1916, Battery A, 336th Field Artillery	Camp Pike, Arkansas
Weaver, Earl, I, 1913, Dairy Dept., University Farm	St. Paul, Minnesota
Webb, Howard F., III, 1914	Military Service
Webb, A. E., I, 1912, Teacher	Two Harbors, Minnesota
(Webb) Epperson, Leona M., IV, 1914, at home	Durham, North Carolina
Weber, A. G., V, 1915	Military Service
Weber, Herbert K., II, 1915, Westinghouse Electric and Mfg. Co.	Pittsburgh, Pennsylvania
Wells, E. E., II, 1913, Draftsman, with C. M. Prichard	Tulsa, Oklahoma
Werner, Ida A., V, 1912, Student, Chicago University	Chicago, Illinois
West, W. E., I, 1917, Crystal Ice Cream Co.	Oklahoma City, Oklahoma
Wheeler, Birdie, VI, 1916, Teacher	Perry, Oklahoma
Wheeler, C. P., I, 1917, Farmer	Blackwell, Oklahoma
Whillock, Buena, VI, 1917, Teacher	Luther, Oklahoma
Whipple, Lieutenant Arthur F., V, 1914, Co. C, 343d M. G.	Camp Travis, Texas
White, Lieutenant H. H., II, 1913, 312th Engineers, 87th N. A.	Camp Pike, Arkansas
Whitesides, E. A., I, 1913, Teacher of Agriculture	St. Cloud, Minnesota
Whitlock, Ernest, V, 1914, O. T. C.	Camp Pike, Arkansas
Wiar, Pearl, V, 1907, Traffic Manager, Oklahoma Refining Co.	Oklahoma City, Oklahoma
Wiener, Lawrence, I, 1915, Dairy Inspector	Long Island, New York
Wilbourn, Verda, VI, 1915, High School Teacher, 1238 Osage street	Caldwell, Kansas
Wilson, O. G., V, 1916, High School Principal	Driftwood, Oklahoma
Wilson, Lieutenant J. M., II, 1917, 334th F. A., N. A.	Camp Pike, Arkansas
Williamson, Captain Emery, II, 1916, 56th Infantry	Camp McArthur, Waco, Texas
(Williamson) Hoke, Carrie, IV, 1915, at home	Enterprise, Oregon
Wikle, G. F., II, 1904, Designing Draftsman, B. F. Goodrich Co.	Akron, Ohio
Wikle, H. H., II, 1911, Electrical Engineer, Becker Bros	Chicago, Illinois
Wiley, R. C., III, 1905, Chemist	Manhattan, Kansas
Williams, R. L., I, 1913	Address Unknown
Williams, Guy P., II, 1910, Electrical Engineer	Akron, Ohio
Will, Doris G., II, 1910, Westinghouse Electric and Mfg., Co.	Pittsburgh, Pennsylvania
Wilson, Clay E., VI, 1911	Military Service
Wilson, H. E., II, 1910, A., T. and S. F. Ry. Co.	Chillicothe, Illinois
Wilson, James, II, 1906, Associate Professor of Bacteriology, Cornell University	Ithaca, New York
Winn, Annaliza, IV, 1917, Teacher	Ryan, Oklahoma
Winters, N. E., I, 1911, Superintendent of Texas Agricultural Experiment Station.	Angleton, Texas
Substation No. 3	Laramie, Wyoming
Wirfs, Claire, IV, 1912, Teacher	
Withers, Clay A., III, 1904, Druggist, 360 N. Pennsylvania avenue	Denver, Colorado

*Deceased.

(Wise) Lantz, Bable, IV, 1909, at home	Tacoma, Washington
(Wise) Diggs, Blanche, V, 1898, at home	Stillwater, Oklahoma
Wise, Oscar, I, 1914	Stillwater, Oklahoma
Wood, C. A., II, 1908, County Engineer	Stillwater, Oklahoma
Wood, Ray Allen, II, 1914, Westinghouse Electric and Mfg. Co.	Wilkesburg, Pennsylvania
Woodson, J. Clay, II, 1915, Westinghouse Electric and Mfg. Co., 7795 street	Brashear Pittsburgh, Pennsylvania
Woodson, M. M., III, 1902	Fallon, Nevada
Woodson, Lieutenant Mortimer, I, 1917, F. A. T. C.	A. E. F., France
Woodworth, L. E., I, 1915, Battery B, 343d F. A.	Camp Travis, Texas
Woodworth, J. E., I, 1905, Bureau of Crop Estimates, U. S. Dept. of Agriculture	Guthrie, Oklahoma
Woodworth, Clyde M., I, 1910, Assistant in Experimental Breeding, University of Wisconsin	Madison, Wisconsin
Word, Gurtha R., V, 1914, High School Teacher	Tyrone, Oklahoma
Worthington, W. H., II, 1910, Designing Engineer, Electric Wheel Co.	Quincy, Illinois
(Wright) Wimer, Louise, VI, 1912, at home	Hopsonville, Montana
Wright, N. W., VI, 1913	San Fernando, California
Wright, Gertrude, VI, 1916, Teacher	Weluka, Oklahoma
Wright, H. M., II, 1915	Address Unknown
Wyant, L. D., II, 1917, Cosden Oil Co.	Tulsa, Oklahoma
Young, J. E., II	Military Service
Young, Kenneth R., II, 1914, U. S. Inspector, Mississippi River Commission	Round Lake, Mississippi
Znamenacheck, Ed, II, 1908, Commonwealth-Edison Co.	Chicago, Illinois

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